

Thu Oct '9 15:36:15 2003 [BLASTN 2.2.6 [Apr-09-2003], NCBI]

/home/glinda/vf/Legal/byeung/ss.DNA33461 (1616 bp)

/home/glinda/vf/Legal/byeung/ss.DNA33461

Database: gen (32,610,065 seqs, 38,226,532,198 bp) Oct 5, 2003 5:36 PM

Locus list: hum (8,873,632 seqs, 11,292,893,600 bp)

Matrix: blastn matrix:1 -3, T: 0, A: 0, X1: 6, X2: 15, S1: 12, S2: 20, eval: 10.

Gap Penalties: Existence: 5, Extension: 2

Sequences producing High-scoring Segment Pairs:					Frame	Score	Match	Pct	E-val
1	P_ACD23222	Human PRO polynucleotide #20.			+	1613	1616	100	0.0
2	P_ABX71541	Human cDNA encoding secreted/transmembra			+	1613	1616	100	0.0
3	P_ACD20098	Human secreted / transmembrane polypepti			+	1613	1616	100	0.0
4	P_AAF72392	Human PRO317 cDNA.			+	1613	1616	100	0.0
5	P_AAF60376	PRO317 coding sequence.			+	1613	1616	100	0.0
6	P_AAA30056	Human PRO317 nucleotide sequence.			+	1613	1616	100	0.0
7	P_AAX28437	EGF-like homologue EBAF-2 coding sequenc			+	1613	1616	100	0.0
8	P_AAX52234	Protein PRO317 cDNA clone DNA33461-1199.			+	1613	1616	100	0.0
9	P_ACA58386	cDNA encoding human PRO polypeptide #20.			+	1613	1616	100	0.0
10	P_ACA60093	Human cDNA for secreted/transmembrane pr			+	1613	1616	100	0.0
11	P_ACA05431	cDNA encoding human secreted protein PRO			+	1613	1616	100	0.0
12	P_ABX96110	Human secreted/transmembrane protein cDN			+	1613	1616	100	0.0
13	P_ACA58989	Human PRO polynucleotide #20.			+	1613	1616	100	0.0
14	P_ACD19736	Human secreted / transmembrane polypepti			+	1613	1616	100	0.0
15	P_ACA54901	Novel human secreted and transmembrane p			+	1613	1616	100	0.0
16	P_ACD07493	Novel human secreted and transmembrane p			+	1613	1616	100	0.0
17	P_ACD23584	Human PRO polynucleotide #20.			+	1613	1616	100	0.0
18	AY358873	Homo sapiens clone DNA33461 LEFTB (UNQ27			+	1613	1616	100	0.0
19	AX076929	Sequence 41 from Patent WO0105836. DNA,			+	1613	1616	100	0.0
20	AX697522	Sequence 113 from Patent WO0104311. DNA			+	1613	1616	100	0.0
21	BD075461	Secretory and transmembrane polypeptide			+	1613	1616	100	0.0
22	BD172321	Secreted and transmembrane polypeptides			+	1613	1616	100	0.0
23	BD172640	Secreted and transmembrane polypeptides			+	1613	1616	100	0.0
24	BD172959	Secreted and transmembrane polypeptides			+	1613	1616	100	0.0
25	BD173278	Secreted and transmembrane polypeptides			+	1613	1616	100	0.0
26	BD175312	Secretory and transmembrane polypeptide			+	1613	1616	100	0.0
27	NM_020997	Homo sapiens left-right determination, f			+	1613	1615	100	0.0
28	BC027883	Homo sapiens, left-right determination,			+	1609	1614	100	0.0
29	P_AAD45128	Human Lefty cDNA.			+	1590	1599	100	0.0
30	P_AAX31925	Human lefty protein encoding DNA.			+	1590	1599	100	0.0
31	P_ABQ55009	Human ovarian antigen HUKJ46 cDNA, SEQ			+	1587	1606	99	0.0

>1 P\_ACD23222 Human PRO polynucleotide #20. (1616 bp) [1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461      1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
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P_ACD23222      1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461     61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
*****
P_ACD23222     61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC

ss.DNA33461    121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
P_ACD23222    121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
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P_ACD23222 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC
ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
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P_ACD23222 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
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P_ACD23222 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
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P_ACD23222 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
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P_ACD23222 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
ss.DNA33461 1321 ACCTAATTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
*****
P_ACD23222 1321 ACCTAATTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
*****
P_ACD23222 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTCTGCTACTGGATCTGGGCT
*****
P_ACD23222 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTCTGCTACTGGATCTGGGCT
ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
*****
P_ACD23222 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA
*****
P_ACD23222 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

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>2 P\_ABX71541 Human cDNA encoding secreted/transmembrane protein PRO317. (1616 bp) [1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/+

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ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
*****
P_ABX71541 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
*****
P_ABX71541 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
P_ABX71541 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
ss.DNA33461 181 AGAGGTGCCACCCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

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ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG  
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P\_ACD23222 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461 241 GGCCCACTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT  
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P\_ACD23222 241 GGCCCACTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCCCTGGCGTTGGAGGCCAGCACACACCT  
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P\_ACD23222 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCCCTGGCGTTGGAGGCCAGCACACACCT

ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT  
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P\_ACD23222 361 GCTGGTGTTCGGCATGGAGCAGCGGTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT

ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
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P\_ACD23222 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC

ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
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P\_ACD23222 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA

ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
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P\_ACD23222 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT

ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGTGCT  
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P\_ACD23222 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGTGCT

ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCAAGCT  
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P\_ACD23222 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCAAGCT

ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
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P\_ACD23222 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA

ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
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P\_ACD23222 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC

ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
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P\_ACD23222 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC

ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG  
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P\_ACD23222 901 CGAGAACTGGGTGCTGGAGCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG

ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
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P\_ACD23222 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC

ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC

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P_ABX71541 181 AGAGGTGCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
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ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCCTGGCGTTGGAGGCCAGCACACACCT
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P_ABX71541 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCCTGGCGTTGGAGGCCAGCACACACCT
ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT
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P_ABX71541 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT
ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
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P_ABX71541 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA
*****
P_ABX71541 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA
ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT
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P_ABX71541 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT
ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCCGGCAGCCGCTGCT
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P_ABX71541 601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCCGGCAGCCGCTGCT
ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCCACAAGCT
*****
P_ABX71541 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCCACAAGCT
ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
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P_ABX71541 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC
*****
P_ABX71541 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC
ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
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P_ABX71541 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG
*****
P_ABX71541 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG
ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
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P_ABX71541 961 GCAGCCCCCGGAGGCCCTGGCCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
ss.DNA33461 1021 CTCGAGACTGACTCGCTGCCCATGATCGTCAAGGAGGGAGGCAGGACCAGGCC
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P\_ABX71541 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC

ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
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P\_ABX71541 1081 CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC

ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
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P\_ABX71541 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT

ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
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P\_ABX71541 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT

ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC  
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P\_ABX71541 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC

ss.DNA33461 1321 ACCTAATTTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT  
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P\_ABX71541 1321 ACCTAATTTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA  
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P\_ABX71541 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA

ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT  
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P\_ABX71541 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT

ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC  
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P\_ABX71541 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA  
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P\_ABX71541 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

>3 P\_ACD20098 Human secreted / transmembrane polypeptide PRO317 cDNA. (1616 bp)  
[1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG  
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P\_ACD20098 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC  
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P\_ACD20098 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC

ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA  
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P\_ACD20098 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG  
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P\_ACD20098 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461 241 GGCCCACTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT  
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P\_ACD20098 241 GGCCCACTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCCCTGGCGTTGGAGGCCAGCACACACCT  
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P\_ACD20098 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCCCTGGCGTTGGAGGCCAGCACACACCT

ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT  
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P\_ACD20098 361 GCTGGTGTTCGGCATGGAGCAGCGGTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT

ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
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P\_ACD20098 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC

ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
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P\_ACD20098 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA

ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
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P\_ACD20098 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT

ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
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P\_ACD20098 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT

ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCAAGCT  
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P\_ACD20098 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCAAGCT

ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
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P\_ACD20098 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA

ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCATGAC  
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P\_ACD20098 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCATGAC

ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
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P\_ACD20098 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC

ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG  
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P\_ACD20098 901 CGAGAACTGGGTGCTGGAGCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG

ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
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P\_ACD20098 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC

ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
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P\_ACD20098 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC

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ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
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P_ACD20098 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC

ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
*****
P_ACD20098 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT

ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
*****
P_ACD20098 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT

ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
*****
P_ACD20098 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC

ss.DNA33461 1321 ACCTAATTTTGGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
*****
P_ACD20098 1321 ACCTAATTTTGGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
*****
P_ACD20098 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA

ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT
*****
P_ACD20098 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT

ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
*****
P_ACD20098 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA
*****
P_ACD20098 1561 CAATCCAGATAATAAAGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA

```

>4 P\_AAF72392 Human PRO317 cDNA. (1616 bp) [1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
*****
P_AAF72392 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
*****
P_AAF72392 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC

ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
P_AAF72392 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
P_AAF72392 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

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ss.DNA33461 241 GGCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT  
 \*\*\*\*\*  
 P\_AAF72392 241 GGCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT  
  
 ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCT  
 \*\*\*\*\*  
 P\_AAF72392 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCT  
  
 ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT  
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 P\_AAF72392 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT  
  
 ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
 \*\*\*\*\*  
 P\_AAF72392 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
  
 ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
 \*\*\*\*\*  
 P\_AAF72392 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
  
 ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
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 P\_AAF72392 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
  
 ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
 \*\*\*\*\*  
 P\_AAF72392 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
  
 ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCGCTGGCGTCCGGCGCCCAAGCT  
 \*\*\*\*\*  
 P\_AAF72392 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCGCTGGCGTCCGGCGCCCAAGCT  
  
 ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
 \*\*\*\*\*  
 P\_AAF72392 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
  
 ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
 \*\*\*\*\*  
 P\_AAF72392 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
  
 ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
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 P\_AAF72392 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
  
 ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG  
 \*\*\*\*\*  
 P\_AAF72392 901 CGAGAACTGGGTGCTGGAGCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG  
  
 ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
 \*\*\*\*\*  
 P\_AAF72392 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
  
 ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
 \*\*\*\*\*  
 P\_AAF72392 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
  
 ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC

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P_AAF72392 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
*****
P_AAF72392 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCTCTGACAAGTTACCTC
*****
P_AAF72392 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCTCTGACAAGTTACCTC
ss.DNA33461 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
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P_AAF72392 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
*****
P_AAF72392 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT
*****
P_AAF72392 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT
ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGTCATCCC
*****
P_AAF72392 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGTCATCCC
ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA
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P_AAF72392 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

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>5 P\_AAF60376 PRO317 coding sequence. (1616 bp) [1 seg]  
 Score = 1613 (3198 bits), Expect = 0.0  
 Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
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P_AAF60376 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
ss.DNA33461 61 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
*****
P_AAF60376 61 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
P_AAF60376 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
ss.DNA33461 181 AGAGGTGCCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
P_AAF60376 181 AGAGGTGCCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGTCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
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P\_AAF60376 241 GGCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT  
 ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGCGCTTGGAGGCCAGCACACACCT  
 \*\*\*\*\*  
 P\_AAF60376 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGCGCTTGGAGGCCAGCACACACCT  
 ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT  
 \*\*\*\*\*  
 P\_AAF60376 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT  
 ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
 \*\*\*\*\*  
 P\_AAF60376 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
 ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
 \*\*\*\*\*  
 P\_AAF60376 481 GCGCAGCGCCCGGGCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
 ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
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 P\_AAF60376 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
 ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
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 P\_AAF60376 601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
 ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCTGGCGTCCGGCGCCCAAGCT  
 \*\*\*\*\*  
 P\_AAF60376 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCTGGCGTCCGGCGCCCAAGCT  
 ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
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 P\_AAF60376 721 GGTCCGCTTTGCCTCGCAGGGGGGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
 ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
 \*\*\*\*\*  
 P\_AAF60376 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
 ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
 \*\*\*\*\*  
 P\_AAF60376 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
 ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG  
 \*\*\*\*\*  
 P\_AAF60376 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG  
 ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
 \*\*\*\*\*  
 P\_AAF60376 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
 ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
 \*\*\*\*\*  
 P\_AAF60376 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
 ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
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 P\_AAF60376 1081 CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC

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ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
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P_AAF60376 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT

ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
*****
P_AAF60376 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT

ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
*****
P_AAF60376 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC

ss.DNA33461 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
*****
P_AAF60376 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
*****
P_AAF60376 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA

ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT
*****
P_AAF60376 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT

ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC
*****
P_AAF60376 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA
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P_AAF60376 1561 CAATCCAGATAATAAAGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA

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>6 P\_AAA30056 Human PRO317 nucleotide sequence. (1616 bp) [1 seg]  
 Score = 1613 (3198 bits), Expect = 0.0  
 Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
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P_AAA30056 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCCTGGCCAGCCC
*****
P_AAA30056 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCCTGGCCAGCCC

ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
P_AAA30056 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
P_AAA30056 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
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P_AAA30056 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

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ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTGGCGTTGGAGGCCAGCACACACCT  
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 P\_AAA30056 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTGGCGTTGGAGGCCAGCACACACCT  
  
 ss.DNA33461 361 GCTGGTGTTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT  
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 P\_AAA30056 361 GCTGGTGTTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT  
  
 ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
 \*\*\*\*\*  
 P\_AAA30056 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
  
 ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
 \*\*\*\*\*  
 P\_AAA30056 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
  
 ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
 \*\*\*\*\*  
 P\_AAA30056 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
  
 ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
 \*\*\*\*\*  
 P\_AAA30056 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
  
 ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCAAGCT  
 \*\*\*\*\*  
 P\_AAA30056 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCAAGCT  
  
 ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
 \*\*\*\*\*  
 P\_AAA30056 721 GGTCCGCTTTGCCTCGCAGGGGGGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
  
 ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
 \*\*\*\*\*  
 P\_AAA30056 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
  
 ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
 \*\*\*\*\*  
 P\_AAA30056 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
  
 ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG  
 \*\*\*\*\*  
 P\_AAA30056 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG  
  
 ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
 \*\*\*\*\*  
 P\_AAA30056 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
  
 ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
 \*\*\*\*\*  
 P\_AAA30056 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
  
 ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
 \*\*\*\*\*  
 P\_AAA30056 1081 CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
  
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*****
P_AAA30056 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
*****
P_AAA30056 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
*****
P_AAA30056 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
ss.DNA33461 1321 ACCTAATTTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
*****
P_AAA30056 1321 ACCTAATTTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
*****
P_AAA30056 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCCTGTCACTGGATCTGGGCT
*****
P_AAA30056 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCCTGTCACTGGATCTGGGCT
ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC
*****
P_AAA30056 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC
ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA
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P_AAA30056 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

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>7 P\_AAX28437 EGF-like homologue EBAF-2 coding sequence. DNA, PAT 22-JUN-1999  
(1616 bp) [1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
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P_AAX28437 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
*****
P_AAX28437 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
P_AAX28437 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
P_AAX28437 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
*****
P_AAX28437 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCCTGGCGTTGGAGGCCAGCACACACCT

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P_AAX28437 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCT
ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT
*****
P_AAX28437 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT
ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
*****
P_AAX28437 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA
*****
P_AAX28437 481 GCGCAGCGCCCGGGCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA
ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT
*****
P_AAX28437 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT
ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGTGCT
*****
P_AAX28437 601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGTGCT
ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGTGGCGTCCGGCGCCCCACAAGCT
*****
P_AAX28437 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGTGGCGTCCGGCGCCCCACAAGCT
ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
*****
P_AAX28437 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC
*****
P_AAX28437 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC
ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
*****
P_AAX28437 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG
*****
P_AAX28437 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG
ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
*****
P_AAX28437 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC
*****
P_AAX28437 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC
ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
*****
P_AAX28437 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
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P_AAX28437 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
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*****
P_AAX28437 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
*****
P_AAX28437 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
ss.DNA33461 1321 ACCTAATTTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
*****
P_AAX28437 1321 ACCTAATTTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
*****
P_AAX28437 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCCTGTCACTGGATCTGGGCT
*****
P_AAX28437 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCCTGTCACTGGATCTGGGCT
ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
*****
P_AAX28437 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA
*****
P_AAX28437 1561 CAATCCAGATAATAAAGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA

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>8 P\_AAX52234 Protein PRO317 cDNA clone DNA33461-1199. DNA, PAT 25-JUN-1999  
(1616 bp) [1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461 1 TGAGACCCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
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P_AAX52234 1 TGAGACCCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
*****
P_AAX52234 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
P_AAX52234 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
P_AAX52234 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
ss.DNA33461 241 GGCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGAAAGAGGTT
*****
P_AAX52234 241 GGCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGAAAGAGGTT
ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCCTGGCGTTGGAGGCCAGCACACCT
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P\_AAX52234 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCCCTGGCGTTGGAGGCCAGCACACACCT  
ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT  
\*\*\*\*\*  
P\_AAX52234 361 GCTGGTGTTCGGCATGGAGCAGCGGTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT  
ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
\*\*\*\*\*  
P\_AAX52234 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
ss.DNA33461 481 GCGCAGCGCCCCGGGCCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
\*\*\*\*\*  
P\_AAX52234 481 GCGCAGCGCCCCGGGCCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
\*\*\*\*\*  
P\_AAX52234 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
\*\*\*\*\*  
P\_AAX52234 601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
ss.DNA33461 661 GCTACAGGTGTCCGTGCAGAGGGAGCATCTGGGCCGCTGGCGTCCGGCGCCACAAGCT  
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P\_AAX52234 661 GCTACAGGTGTCCGTGCAGAGGGAGCATCTGGGCCGCTGGCGTCCGGCGCCACAAGCT  
ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
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P\_AAX52234 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
\*\*\*\*\*  
P\_AAX52234 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
\*\*\*\*\*  
P\_AAX52234 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
\*\*\*\*\*  
P\_AAX52234 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
\*\*\*\*\*  
P\_AAX52234 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
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P\_AAX52234 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
\*\*\*\*\*  
P\_AAX52234 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
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P\_AAX52234 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT

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ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
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P_AAX52234 1201 GTGTGTGTTTCTGAAGTGTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT

ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
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P_AAX52234 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC

ss.DNA33461 1321 ACCTAATTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
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P_AAX52234 1321 ACCTAATTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
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P_AAX52234 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA

ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCCTGTCACTGGATCTGGGCT
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P_AAX52234 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCCTGTCACTGGATCTGGGCT

ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC
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P_AAX52234 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA
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P_AAX52234 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

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>9 P\_ACA58386 cDNA encoding human PRO polypeptide #20. cDNA, PAT 10-JUN-2003 (1616 bp) [1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/+

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ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
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P_ACA58386 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC
*****
P_ACA58386 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC

ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
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P_ACA58386 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
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P_ACA58386 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
*****
P_ACA58386 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCCTGGCGTTGGAGGCCAGCACACACCT
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ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT  
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 ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
 \*\*\*\*\*  
 P\_ACA58386 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
 \*\*\*\*\*  
 ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
 \*\*\*\*\*  
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 \*\*\*\*\*  
 ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
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 P\_ACA58386 601 CGACGTGACCGAGGCCGTGAACCTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
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 P\_ACA58386 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCAAGCT  
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 ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
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 P\_ACA58386 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
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 ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
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 ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
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 ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
 \*\*\*\*\*  
 P\_ACA58386 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
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 ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
 \*\*\*\*\*  
 P\_ACA58386 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
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 ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
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 P\_ACA58386 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
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 ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
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 P\_ACA58386 1081 CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
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 ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
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 P\_ACA58386 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
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ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
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P_ACA58386 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT

ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
*****
P_ACA58386 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC

ss.DNA33461 1321 ACCTAATTTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
*****
P_ACA58386 1321 ACCTAATTTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
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P_ACA58386 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA

ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCCTGTCACTGGATCTGGGCT
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ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA
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>10 P\_ACA60093 Human cDNA for secreted/transmembrane protein PR0317. (1616 bp)  
[1 seg]  
Score = 1613 (3198 bits), Expect = 0.0  
Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461 1 TGAGACCCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
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P_ACA60093 1 TGAGACCCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC
*****
P_ACA60093 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC

ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
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P_ACA60093 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
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P_ACA60093 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
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ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCTGGCGTTGGAGGCCAGCACACACCT
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ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT  
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 P\_ACA60093 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT  
  
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 \*\*\*\*\*  
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 P\_ACA60093 601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
  
 ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCGCTGGCGTCCGGCGCCACAAGCT  
 \*\*\*\*\*  
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 \*\*\*\*\*  
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 P\_ACA60093 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCATGAC  
  
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 P\_ACA60093 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
  
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 P\_ACA60093 901 CGAGAACTGGGTGCTGGAGCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
  
 ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
 \*\*\*\*\*  
 P\_ACA60093 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
  
 ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
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 ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT



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P_ACA60093 1201 GTGTGTGTTTCTGAAGTGTTGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
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P_ACA60093 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
ss.DNA33461 1321 ACCTAATTTTGTCTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
*****
P_ACA60093 1321 ACCTAATTTTGTCTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
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ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCCTGTCACTGGATCTGGGCT
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ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA
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>11 P\_ACA05431 cDNA encoding human secreted protein PRO317. (1616 bp) [1 seg]  
Score = 1613 (3198 bits), Expect = 0.0  
Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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P_ACA05431 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC
*****
P_ACA05431 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC
ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
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P_ACA05431 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
P_ACA05431 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
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P_ACA05431 241 GGCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
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ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT
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P\_ACA05431 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT  
ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
\*\*\*\*\*  
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ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
\*\*\*\*\*  
P\_ACA05431 481 GCGCAGCGCCCGGGCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
\*\*\*\*\*  
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\*\*\*\*\*  
P\_ACA05431 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCAAGCT  
\*\*\*\*\*  
P\_ACA05431 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCAAGCT  
ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
\*\*\*\*\*  
P\_ACA05431 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
\*\*\*\*\*  
P\_ACA05431 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
\*\*\*\*\*  
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ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCTTGGCTTATGAGTGTGTGGGCACCTGCCG  
\*\*\*\*\*  
P\_ACA05431 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCTTGGCTTATGAGTGTGTGGGCACCTGCCG  
ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
\*\*\*\*\*  
P\_ACA05431 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
\*\*\*\*\*  
P\_ACA05431 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
\*\*\*\*\*  
P\_ACA05431 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
\*\*\*\*\*  
P\_ACA05431 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
\*\*\*\*\*  
P\_ACA05431 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT

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ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
*****
P_ACA05431 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC

ss.DNA33461 1321 ACCTAATTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
*****
P_ACA05431 1321 ACCTAATTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACCTATATTCTAAGCACTTACATGTGGAGATACTGTA
*****
P_ACA05431 1381 TTCTCTATTCTTATTATTCACTGCACCTATATTCTAAGCACTTACATGTGGAGATACTGTA

ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCCAN TGTCATTGTTTACTTGTCCGTGCTACTGGATCTGGGCT
*****
P_ACA05431 1441 ACCTGAGGGCAGAAAGCCCAN TGTCATTGTTTACTTGTCCGTGCTACTGGATCTGGGCT

ss.DNA33461 1501 AAAGTCCTCCACCACCACCTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGTCATCCC
*****
P_ACA05431 1501 AAAGTCCTCCACCACCACCTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGTCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA
*****
P_ACA05431 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

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>12 P\_ABX96110 Human secreted/transmembrane protein cDNA, #22. (1616 bp) [1 seg]  
Score = 1613 (3198 bits), Expect = 0.0  
Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
*****
P_ABX96110 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461 61 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCCTGGCCAGCCC
*****
P_ABX96110 61 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCCTGGCCAGCCC

ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
P_ABX96110 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
P_ABX96110 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461 241 GGCCCA GTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
*****
P_ABX96110 241 GGCCCA GTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCT
*****
P_ABX96110 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCT

ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT
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P_ABX96110 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT

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ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
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 P\_ABX96110 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
  
 ss.DNA33461 481 GCGCAGCGCCCCGGGCCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
 \*\*\*\*\*  
 P\_ABX96110 481 GCGCAGCGCCCCGGGCCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
  
 ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
 \*\*\*\*\*  
 P\_ABX96110 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
  
 ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
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 P\_ABX96110 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
  
 ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCACAAGCT  
 \*\*\*\*\*  
 P\_ABX96110 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCACAAGCT  
  
 ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
 \*\*\*\*\*  
 P\_ABX96110 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
  
 ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
 \*\*\*\*\*  
 P\_ABX96110 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
  
 ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
 \*\*\*\*\*  
 P\_ABX96110 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
  
 ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
 \*\*\*\*\*  
 P\_ABX96110 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
  
 ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
 \*\*\*\*\*  
 P\_ABX96110 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
  
 ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
 \*\*\*\*\*  
 P\_ABX96110 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
  
 ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTG  
 \*\*\*\*\*  
 P\_ABX96110 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTG  
  
 ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
 \*\*\*\*\*  
 P\_ABX96110 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
  
 ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
 \*\*\*\*\*  
 P\_ABX96110 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
  
 ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC

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P_ABX96110 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
ss.DNA33461 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
*****
P_ABX96110 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
*****
P_ABX96110 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT
*****
P_ABX96110 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT
ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
*****
P_ABX96110 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA
*****
P_ABX96110 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

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>13 P\_ACA58989 Human PRO polynucleotide #20. (1616 bp) [1 seg]  
Score = 1613 (3198 bits), Expect = 0.0  
Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
*****
P_ACA58989 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
ss.DNA33461 61 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCCTGGCCAGCCC
*****
P_ACA58989 61 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCCTGGCCAGCCC
ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
P_ACA58989 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
P_ACA58989 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
*****
P_ACA58989 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCTGGCGTTGGAGGCCAGCACACACCT
*****
P_ACA58989 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCTGGCGTTGGAGGCCAGCACACACCT
ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT
*****
P_ACA58989 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT
ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
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P\_ACA58989 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
ss.DNA33461 481 GCGCAGCGCCCCGGGCCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
\*\*\*\*\*  
P\_ACA58989 481 GCGCAGCGCCCCGGGCCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
\*\*\*\*\*  
P\_ACA58989 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
\*\*\*\*\*  
P\_ACA58989 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCAAGCT  
\*\*\*\*\*  
P\_ACA58989 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCAAGCT  
ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
\*\*\*\*\*  
P\_ACA58989 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
\*\*\*\*\*  
P\_ACA58989 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
\*\*\*\*\*  
P\_ACA58989 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
\*\*\*\*\*  
P\_ACA58989 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
\*\*\*\*\*  
P\_ACA58989 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
\*\*\*\*\*  
P\_ACA58989 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
\*\*\*\*\*  
P\_ACA58989 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
\*\*\*\*\*  
P\_ACA58989 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
\*\*\*\*\*  
P\_ACA58989 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC  
\*\*\*\*\*  
P\_ACA58989 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC

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ss.DNA33461 1321 ACCTAATTTTGGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
*****
P_ACA58989 1321 ACCTAATTTTGGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

ss.DNA33461 1381 TTCTCTATTCTTATTATTACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
*****
P_ACA58989 1381 TTCTCTATTCTTATTATTACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA

ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCCTGTCACTGGATCTGGGCT
*****
P_ACA58989 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCCTGTCACTGGATCTGGGCT

ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
*****
P_ACA58989 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA
*****
P_ACA58989 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

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>14\_P\_ACD19736 Human secreted / transmembrane polypeptide PRO317 cDNA. (1616 bp)

[1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
*****
P_ACD19736 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
*****
P_ACD19736 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC

ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
P_ACD19736 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
P_ACD19736 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
*****
P_ACD19736 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCTGGCGTTGGAGGCCAGCACACACCT
*****
P_ACD19736 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCTGGCGTTGGAGGCCAGCACACACCT

ss.DNA33461 361 GCTGGTGTTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT
*****
P_ACD19736 361 GCTGGTGTTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT

ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
*****
P_ACD19736 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC

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ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
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 P\_ACD19736 481 GCGCAGCGCCCGGGCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
  
 ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
 \*\*\*\*\*  
 P\_ACD19736 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
  
 ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACCTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
 \*\*\*\*\*  
 P\_ACD19736 601 CGACGTGACCGAGGCCGTGAACCTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
  
 ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCACAAGCT  
 \*\*\*\*\*  
 P\_ACD19736 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCACAAGCT  
  
 ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
 \*\*\*\*\*  
 P\_ACD19736 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
  
 ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
 \*\*\*\*\*  
 P\_ACD19736 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
  
 ss.DNA33461 841 CGAGGGCACC CGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
 \*\*\*\*\*  
 P\_ACD19736 841 CGAGGGCACC CGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
  
 ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
 \*\*\*\*\*  
 P\_ACD19736 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
  
 ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
 \*\*\*\*\*  
 P\_ACD19736 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
  
 ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
 \*\*\*\*\*  
 P\_ACD19736 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
  
 ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
 \*\*\*\*\*  
 P\_ACD19736 1081 CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
  
 ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
 \*\*\*\*\*  
 P\_ACD19736 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
  
 ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
 \*\*\*\*\*  
 P\_ACD19736 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
  
 ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC  
 \*\*\*\*\*  
 P\_ACD19736 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC



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ss.DNA33461 1321 ACCTAATTTTGGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
*****
P_ACD19736 1321 ACCTAATTTTGGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
*****
P_ACD19736 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA

ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT
*****
P_ACD19736 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT

ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
*****
P_ACD19736 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA
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P_ACD19736 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

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>15 P\_ACA54901 Novel human secreted and transmembrane protein PRO317 cDNA. (1616 bp) [1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
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P_ACA54901 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
*****
P_ACA54901 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC

ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
P_ACA54901 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
P_ACA54901 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
*****
P_ACA54901 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCTGGCGTTGGAGGCCAGCACACACCT
*****
P_ACA54901 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCTGGCGTTGGAGGCCAGCACACACCT

ss.DNA33461 361 GCTGGTGTTTCGGCATGGAGCAGCGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT
*****
P_ACA54901 361 GCTGGTGTTTCGGCATGGAGCAGCGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT

ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
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P_ACA54901 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC

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ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
 \*\*\*\*\*  
 P\_ACA54901 481 GCGCAGCGCCCGGGCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
  
 ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
 \*\*\*\*\*  
 P\_ACA54901 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
  
 ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
 \*\*\*\*\*  
 P\_ACA54901 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
  
 ss.DNA33461 661 GCTACAGGTGTCGGTGACAGGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCACAAGCT  
 \*\*\*\*\*  
 P\_ACA54901 661 GCTACAGGTGTCGGTGACAGGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCACAAGCT  
  
 ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
 \*\*\*\*\*  
 P\_ACA54901 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
  
 ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
 \*\*\*\*\*  
 P\_ACA54901 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
  
 ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
 \*\*\*\*\*  
 P\_ACA54901 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
  
 ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG  
 \*\*\*\*\*  
 P\_ACA54901 901 CGAGAACTGGGTGCTGGAGCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG  
  
 ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
 \*\*\*\*\*  
 P\_ACA54901 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
  
 ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
 \*\*\*\*\*  
 P\_ACA54901 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
  
 ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
 \*\*\*\*\*  
 P\_ACA54901 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
  
 ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
 \*\*\*\*\*  
 P\_ACA54901 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
  
 ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
 \*\*\*\*\*  
 P\_ACA54901 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
  
 ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC  
 \*\*\*\*\*  
 P\_ACA54901 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC  
  
 ss.DNA33461 1321 ACCTAATTTTGTCTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

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P_ACA54901 1321 ACCTAATTTTGTCTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
*****
P_ACA54901 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT
*****
P_ACA54901 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT
ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
*****
P_ACA54901 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA
*****
P_ACA54901 1561 CAATCCAGATAATAAAGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA

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>16 P\_ACD07493 Novel human secreted and transmembrane protein PRO317 cDNA. (1616 bp) [1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
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P_ACD07493 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
*****
P_ACD07493 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
P_ACD07493 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
P_ACD07493 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
*****
P_ACD07493 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCTGGCGTTGGAGGCCAGCACACACCT
*****
P_ACD07493 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCTGGCGTTGGAGGCCAGCACACACCT
ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT
*****
P_ACD07493 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT
ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
*****
P_ACD07493 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA

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*****
P_ACD07493 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA
ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT
*****
P_ACD07493 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT
ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT
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P_ACD07493 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT
ss.DNA33461 661 GCTACAGGTGTCGGTGACAGAGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCACAAGCT
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P_ACD07493 661 GCTACAGGTGTCGGTGACAGAGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCACAAGCT
ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
*****
P_ACD07493 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC
*****
P_ACD07493 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC
ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
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P_ACD07493 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG
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P_ACD07493 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCTGGCTTATGAGTGTGTGGGCACCTGCCG
ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
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P_ACD07493 961 GCAGCCCCCGGAGGCCCTGGCCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC
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P_ACD07493 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC
ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
*****
P_ACD07493 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
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P_ACD07493 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
*****
P_ACD07493 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
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P_ACD07493 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
ss.DNA33461 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
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P\_ACD07493 1321 ACCTAATTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA  
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P\_ACD07493 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA

ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT  
\*\*\*\*\*

P\_ACD07493 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT

ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC  
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P\_ACD07493 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA  
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P\_ACD07493 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

>17 P\_ACD23584 Human PRO polynucleotide #20. (1616 bp) [1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG  
\*\*\*\*\*

P\_ACD23584 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCCTGGCCAGCCC  
\*\*\*\*\*

P\_ACD23584 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCCTGGCCAGCCC

ss.DNA33461 121 CGGGGCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA  
\*\*\*\*\*

P\_ACD23584 121 CGGGGCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461 181 AGAGGTGCCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG  
\*\*\*\*\*

P\_ACD23584 181 AGAGGTGCCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT  
\*\*\*\*\*

P\_ACD23584 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCT  
\*\*\*\*\*

P\_ACD23584 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCT

ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT  
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P\_ACD23584 361 GCTGGTGTTCGGCATGGAGCAGCGGTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT

ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
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P\_ACD23584 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC

ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
\*\*\*\*\*

P\_ACD23584 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA

ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
 \*\*\*\*\*  
 P\_ACD23584 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
 ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
 \*\*\*\*\*  
 P\_ACD23584 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
 ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCACAAGCT  
 \*\*\*\*\*  
 P\_ACD23584 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCACAAGCT  
 ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
 \*\*\*\*\*  
 P\_ACD23584 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
 ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
 \*\*\*\*\*  
 P\_ACD23584 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
 ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
 \*\*\*\*\*  
 P\_ACD23584 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
 ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
 \*\*\*\*\*  
 P\_ACD23584 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
 ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
 \*\*\*\*\*  
 P\_ACD23584 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
 ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
 \*\*\*\*\*  
 P\_ACD23584 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
 ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
 \*\*\*\*\*  
 P\_ACD23584 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
 ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
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 P\_ACD23584 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
 ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
 \*\*\*\*\*  
 P\_ACD23584 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
 ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC  
 \*\*\*\*\*  
 P\_ACD23584 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC  
 ss.DNA33461 1321 ACCTAATTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT  
 \*\*\*\*\*  
 P\_ACD23584 1321 ACCTAATTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

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ss.DNA33461 1381 TTCTCTATTCTTATTATTCACCTGCACTATATCTAAGCACTTACATGTGGAGATACTGTA
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P_ACD23584 1381 TTCTCTATTCTTATTATTCACCTGCACTATATCTAAGCACTTACATGTGGAGATACTGTA

ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT
*****
P_ACD23584 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT

ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC
*****
P_ACD23584 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA
*****
P_ACD23584 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

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>18 AY358873 Homo sapiens clone DNA33461 LEFTB (UNQ278) mRNA, complete cds.  
(1616 bp) [1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461      1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
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AY358873         1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461     61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
*****
AY358873        61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC

ss.DNA33461     121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
AY358873        121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461     181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
AY358873        181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461     241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
*****
AY358873        241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461     301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGCGGTTGGAGGCCAGCACACACCT
*****
AY358873        301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGCGGTTGGAGGCCAGCACACACCT

ss.DNA33461     361 GCTGGTGTTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT
*****
AY358873        361 GCTGGTGTTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT

ss.DNA33461     421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
*****
AY358873        421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC

ss.DNA33461     481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA
*****
AY358873        481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA

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ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
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 AY358873 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT

ss.DNA33461 601 CGACGTGACCGAGGCCGTGAAC TTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
 \*\*\*\*\*  
 AY358873 601 CGACGTGACCGAGGCCGTGAAC TTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT

ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGTGGCGTCCGGCGCCACAAGCT  
 \*\*\*\*\*  
 AY358873 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGTGGCGTCCGGCGCCACAAGCT

ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
 \*\*\*\*\*  
 AY358873 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA

ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
 \*\*\*\*\*  
 AY358873 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC

ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
 \*\*\*\*\*  
 AY358873 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC

ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
 \*\*\*\*\*  
 AY358873 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG

ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
 \*\*\*\*\*  
 AY358873 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC

ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGT CAGCATCAAGGAGGGAGGCAGGACCAGGCC  
 \*\*\*\*\*  
 AY358873 1021 CTCGGAGACTGACTCGCTGCCCATGATCGT CAGCATCAAGGAGGGAGGCAGGACCAGGCC

ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
 \*\*\*\*\*  
 AY358873 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC

ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
 \*\*\*\*\*  
 AY358873 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT

ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
 \*\*\*\*\*  
 AY358873 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT

ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC  
 \*\*\*\*\*  
 AY358873 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC

ss.DNA33461 1321 ACCTAATTTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT  
 \*\*\*\*\*  
 AY358873 1321 ACCTAATTTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA



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AY358873 1381 TTCTCTATTCTTATTATTCACCTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCCANCTGTGTCATTGTTTACTTGTCTCTGTCACCTGGATCTGGGCT
*****
AY358873 1441 ACCTGAGGGCAGAAAGCCCANCTGTGTCATTGTTTACTTGTCTCTGTCACCTGGATCTGGGCT
ss.DNA33461 1501 AAAGTCCTCCACCACCACCTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGTCATCCC
*****
AY358873 1501 AAAGTCCTCCACCACCACCTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGTCATCCC
ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA
*****
AY358873 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

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>19 AX076929 Sequence 41 from Patent WO0105836. DNA, linear, PAT 22-FEB-2001 (1616 bp) [1 seg]  
Score = 1613 (3198 bits), Expect = 0.0  
Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461 1 TGAGACCCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
*****
AX076929 1 TGAGACCCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
ss.DNA33461 61 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCCTGGCCAGCCC
*****
AX076929 61 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCCTGGCCAGCCC
ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
AX076929 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
AX076929 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
*****
AX076929 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCT
*****
AX076929 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCT
ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT
*****
AX076929 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT
ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
*****
AX076929 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
ss.DNA33461 481 GCGCAGCGCCCCGGGCCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA
*****
AX076929 481 GCGCAGCGCCCCGGGCCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA
ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT

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AX076929      541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT
ss.DNA33461   601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT
*****
AX076929      601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT
ss.DNA33461   661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCACAAGCT
*****
AX076929      661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCACAAGCT
ss.DNA33461   721 GGTCCGCTTTGCCTCGCAGGGGGGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
*****
AX076929      721 GGTCCGCTTTGCCTCGCAGGGGGGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
ss.DNA33461   781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC
*****
AX076929      781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC
ss.DNA33461   841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
*****
AX076929      841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
ss.DNA33461   901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG
*****
AX076929      901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG
ss.DNA33461   961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
*****
AX076929      961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
ss.DNA33461  1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC
*****
AX076929      1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC
ss.DNA33461  1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
*****
AX076929      1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
ss.DNA33461  1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
*****
AX076929      1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
ss.DNA33461  1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
*****
AX076929      1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
ss.DNA33461  1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCTCTGACAAGTTACCTC
*****
AX076929      1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCTCTGACAAGTTACCTC
ss.DNA33461  1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
*****
AX076929      1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
ss.DNA33461  1381 TTCTCTATTCTTATTATTCAGTCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
*****

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AX076929 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA

ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT  
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AX076929 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT

ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC  
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AX076929 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA  
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AX076929 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

>20 AX697522 Sequence 113 from Patent WO0104311. DNA, linear, PAT.02-APR-2003  
 (1616 bp) [1 seg]  
 Score = 1613 (3198 bits), Expect = 0.0  
 Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG  
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AX697522 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461 61 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC  
 \*\*\*\*\*

AX697522 61 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC

ss.DNA33461 121 CGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA  
 \*\*\*\*\*

AX697522 121 CGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461 181 AGAGGTGCCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG  
 \*\*\*\*\*

AX697522 181 AGAGGTGCCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT  
 \*\*\*\*\*

AX697522 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGCGTTGGAGGCCAGCACACACCT  
 \*\*\*\*\*

AX697522 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGCGTTGGAGGCCAGCACACACCT

ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT  
 \*\*\*\*\*

AX697522 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT

ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
 \*\*\*\*\*

AX697522 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC

ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
 \*\*\*\*\*

AX697522 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA

ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
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AX697522 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT

ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
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AX697522 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT

ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCAAGCT  
\*\*\*\*\*

AX697522 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCAAGCT

ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
\*\*\*\*\*

AX697522 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA

ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
\*\*\*\*\*

AX697522 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC

ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
\*\*\*\*\*

AX697522 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC

ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
\*\*\*\*\*

AX697522 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG

ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
\*\*\*\*\*

AX697522 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC

ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
\*\*\*\*\*

AX697522 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC

ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
\*\*\*\*\*

AX697522 1081 CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC

ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
\*\*\*\*\*

AX697522 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT

ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
\*\*\*\*\*

AX697522 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT

ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCTCTGACAAGTTACCTC  
\*\*\*\*\*

AX697522 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCTCTGACAAGTTACCTC

ss.DNA33461 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT  
\*\*\*\*\*

AX697522 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA  
\*\*\*\*\*

AX697522 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA

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ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT
*****
AX697522      1441 ACCTGAGGGCAGAAAGCCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT

ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
*****
AX697522      1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA
*****
AX697522      1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

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>21 BD075461 Secretary and transmembrane polypeptide and nucleic acid encoding (1616 bp) [1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461      1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
*****
BD075461          1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461     61 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC
*****
BD075461         61 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCC

ss.DNA33461    121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
BD075461       121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461    181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
BD075461       181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461    241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
*****
BD075461       241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461    301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCT
*****
BD075461       301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCT

ss.DNA33461    361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT
*****
BD075461       361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT

ss.DNA33461    421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
*****
BD075461       421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC

ss.DNA33461    481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA
*****
BD075461       481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA

ss.DNA33461    541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT
*****
BD075461       541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT

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ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
\*\*\*\*\*  
BD075461 601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT

ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCTGGCGTCCGGCGCCACAAGCT  
\*\*\*\*\*  
BD075461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCTGGCGTCCGGCGCCACAAGCT

ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
\*\*\*\*\*  
BD075461 721 GGTCCGCTTTGCCTCGCAGGGGGGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA

ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACC AATGAC  
\*\*\*\*\*  
BD075461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACC AATGAC

ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
\*\*\*\*\*  
BD075461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC

ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
\*\*\*\*\*  
BD075461 901 CGAGAACTGGGTGCTGGAGCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG

ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
\*\*\*\*\*  
BD075461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC

ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
\*\*\*\*\*  
BD075461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC

ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
\*\*\*\*\*  
BD075461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC

ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
\*\*\*\*\*  
BD075461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT

ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
\*\*\*\*\*  
BD075461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT

ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC  
\*\*\*\*\*  
BD075461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC

ss.DNA33461 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT  
\*\*\*\*\*  
BD075461 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA  
\*\*\*\*\*  
BD075461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA

```

ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT
*****
BD075461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT

ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
*****
BD075461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA
*****
BD075461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

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>22 BD172321 Secreted and transmembrane polypeptides and nucleic acids encoding (1616 bp) [1 seg]  
Score = 1613 (3198 bits), Expect = 0.0  
Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/+

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ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
*****
BD172321 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGCCAGCCC
*****
BD172321 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGCCAGCCC

ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
BD172321 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
BD172321 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
*****
BD172321 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCTGGCGTTGGAGGCCAGCACACCT
*****
BD172321 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCTGGCGTTGGAGGCCAGCACACCT

ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT
*****
BD172321 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT

ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
*****
BD172321 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC

ss.DNA33461 481 GCGCAGCGCCCCGGGCCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA
*****
BD172321 481 GCGCAGCGCCCCGGGCCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA

ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT
*****
BD172321 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT

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ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACCTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
\*\*\*\*\*

BD172321 601 CGACGTGACCGAGGCCGTGAACCTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT

ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCTGGCGTCCGGCGCCCAAGCT  
\*\*\*\*\*

BD172321 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCTGGCGTCCGGCGCCCAAGCT

ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
\*\*\*\*\*

BD172321 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA

ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCATGAC  
\*\*\*\*\*

BD172321 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCATGAC

ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
\*\*\*\*\*

BD172321 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC

ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
\*\*\*\*\*

BD172321 901 CGAGAACTGGGTGCTGGAGCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG

ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
\*\*\*\*\*

BD172321 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC

ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
\*\*\*\*\*

BD172321 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC

ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
\*\*\*\*\*

BD172321 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC

ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
\*\*\*\*\*

BD172321 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT

ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
\*\*\*\*\*

BD172321 1201 GTGTGTGTTTCTGAAGTGTTGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT

ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC  
\*\*\*\*\*

BD172321 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC

ss.DNA33461 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT  
\*\*\*\*\*

BD172321 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA  
\*\*\*\*\*

BD172321 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA

ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT



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*****
BD172321      1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGGT
ss.DNA33461  1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
*****
BD172321      1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
ss.DNA33461  1561 CAATCCAGATAATAAAGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA
*****
BD172321      1561 CAATCCAGATAATAAAGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA

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>23 BD172640 Secreted and transmembrane polypeptides and nucleic acids encoding (1616 bp) [1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/+

```

ss.DNA33461    1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
*****
BD172640       1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461   61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC
*****
BD172640      61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC

ss.DNA33461  121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
BD172640     121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461  181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
BD172640     181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461  241 GGCCCACTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
*****
BD172640     241 GGCCCACTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461  301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCCTGGCGTTGGAGGCCAGCACACACCT
*****
BD172640     301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCCTGGCGTTGGAGGCCAGCACACACCT

ss.DNA33461  361 GCTGGTGTTCGGCATGGAGCAGCGGTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT
*****
BD172640     361 GCTGGTGTTCGGCATGGAGCAGCGGTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT

ss.DNA33461  421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
*****
BD172640     421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC

ss.DNA33461  481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA
*****
BD172640     481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA

ss.DNA33461  541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT
*****
BD172640     541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT

ss.DNA33461  601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT

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*****
BD172640      601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT
ss.DNA33461   661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCTGGCGTCCGGCGCCCACAAGCT
*****
BD172640      661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCTGGCGTCCGGCGCCCACAAGCT
ss.DNA33461   721 GGTCCGCTTTGCCTCGCAGGGGGGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
*****
BD172640      721 GGTCCGCTTTGCCTCGCAGGGGGGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
ss.DNA33461   781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC
*****
BD172640      781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC
ss.DNA33461   841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
*****
BD172640      841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
ss.DNA33461   901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG
*****
BD172640      901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG
ss.DNA33461   961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
*****
BD172640      961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
ss.DNA33461  1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC
*****
BD172640      1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC
ss.DNA33461  1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
*****
BD172640      1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
ss.DNA33461  1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
*****
BD172640      1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
ss.DNA33461  1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
*****
BD172640      1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
ss.DNA33461  1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCTCTGACAAGTTACCTC
*****
BD172640      1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCTCTGACAAGTTACCTC
ss.DNA33461  1321 ACCTAATTTTGGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
*****
BD172640      1321 ACCTAATTTTGGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
ss.DNA33461  1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
*****
BD172640      1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
ss.DNA33461  1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCCTGTCACTGGATCTGGGCT
*****

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BD172640      1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT
ss.DNA33461  1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
*****
BD172640      1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
ss.DNA33461  1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA
*****
BD172640      1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

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>24 BD172959 Secreted and transmembrane polypeptides and nucleic acids encoding (1616 bp) [1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

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ss.DNA33461    1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
*****
BD172959       1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
ss.DNA33461   61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC
*****
BD172959      61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC
ss.DNA33461  121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
BD172959     121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
ss.DNA33461  181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
BD172959     181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
ss.DNA33461  241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
*****
BD172959     241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
ss.DNA33461  301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCTGGCGTTGGAGGCCAGCACACACT
*****
BD172959     301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCTGGCGTTGGAGGCCAGCACACACT
ss.DNA33461  361 GCTGGTGTTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT
*****
BD172959     361 GCTGGTGTTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT
ss.DNA33461  421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
*****
BD172959     421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
ss.DNA33461  481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA
*****
BD172959     481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA
ss.DNA33461  541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT
*****
BD172959     541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT
ss.DNA33461  601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT
*****

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BD172959	601	CGACGTGACCGAGGCCGTGAAC'TTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT
ss.DNA33461	661	GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCACAAGCT *****
BD172959	661	GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCACAAGCT
ss.DNA33461	721	GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA *****
BD172959	721	GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
ss.DNA33461	781	CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCATGAC *****
BD172959	781	CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCATGAC
ss.DNA33461	841	CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC *****
BD172959	841	CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
ss.DNA33461	901	CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG *****
BD172959	901	CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG
ss.DNA33461	961	GCAGCCCCCGGAGGCCCTGGCC'TTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC *****
BD172959	961	GCAGCCCCCGGAGGCCCTGGCC'TTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
ss.DNA33461	1021	CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC *****
BD172959	1021	CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC
ss.DNA33461	1081	CCAGGTGGTTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC *****
BD172959	1081	CCAGGTGGTTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
ss.DNA33461	1141	GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT *****
BD172959	1141	GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
ss.DNA33461	1201	GTGTGTGTTTCTGAAGTGTT'CGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT *****
BD172959	1201	GTGTGTGTTTCTGAAGTGTT'CGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
ss.DNA33461	1261	GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC *****
BD172959	1261	GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
ss.DNA33461	1321	ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT *****
BD172959	1321	ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
ss.DNA33461	1381	TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA *****
BD172959	1381	TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
ss.DNA33461	1441	ACCTGAGGGCAGAAAGCCANTGTGTCAATTGTTTACTTGTCTGTCACTGGATCTGGGCT *****
BD172959	1441	ACCTGAGGGCAGAAAGCCANTGTGTCAATTGTTTACTTGTCTGTCACTGGATCTGGGCT

ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC  
 \*\*\*\*\*  
 BD172959 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA  
 \*\*\*\*\*  
 BD172959 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

>25 BD173278 Secreted and transmembrane polypeptides and nucleic acids encoding  
 (1616 bp) [1 seg]  
 Score = 1613 (3198 bits), Expect = 0.0  
 Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

ss.DNA33461 1 TGAGACCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG  
 \*\*\*\*\*  
 BD173278 1 TGAGACCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC  
 \*\*\*\*\*  
 BD173278 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC

ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA  
 \*\*\*\*\*  
 BD173278 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG  
 \*\*\*\*\*  
 BD173278 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461 241 GGCCCACTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT  
 \*\*\*\*\*  
 BD173278 241 GGCCCACTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCT  
 \*\*\*\*\*  
 BD173278 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCT

ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT  
 \*\*\*\*\*  
 BD173278 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT

ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
 \*\*\*\*\*  
 BD173278 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC

ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
 \*\*\*\*\*  
 BD173278 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA

ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
 \*\*\*\*\*  
 BD173278 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT

ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
 \*\*\*\*\*  
 BD173278 601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT

ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCACAAGCT  
\*\*\*\*\*

BD173278 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCACAAGCT

ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
\*\*\*\*\*

BD173278 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA

ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
\*\*\*\*\*

BD173278 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC

ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
\*\*\*\*\*

BD173278 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC

ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
\*\*\*\*\*

BD173278 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG

ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
\*\*\*\*\*

BD173278 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC

ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
\*\*\*\*\*

BD173278 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC

ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
\*\*\*\*\*

BD173278 1081 CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC

ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
\*\*\*\*\*

BD173278 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT

ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
\*\*\*\*\*

BD173278 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT

ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC  
\*\*\*\*\*

BD173278 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC

ss.DNA33461 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT  
\*\*\*\*\*

BD173278 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT

ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA  
\*\*\*\*\*

BD173278 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA

ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCAATTGTTTACTTGTCCTGTCACTGGATCTGGGCT  
\*\*\*\*\*

BD173278 1441 ACCTGAGGGCAGAAAGCCANTGTGTCAATTGTTTACTTGTCCTGTCACTGGATCTGGGCT

ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC  
\*\*\*\*\*

BD173278 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA  
\*\*\*\*\*

BD173278 1561 CAATCCAGATAATAAAGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA

>26 BD175312 Secretory and transmembrane polypeptide and nucleic acid encoding  
(1616 bp) [1 seg]

Score = 1613 (3198 bits), Expect = 0.0

Identities = 1616/1616 (100%), at 1,1-1616,1616, Strand +/-

ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG  
\*\*\*\*\*

BD175312 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC  
\*\*\*\*\*

BD175312 61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC

ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA  
\*\*\*\*\*

BD175312 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG  
\*\*\*\*\*

BD175312 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461 241 GGCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT  
\*\*\*\*\*

BD175312 241 GGCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCCTGGCGTTGGAGGCCAGCACACACCT  
\*\*\*\*\*

BD175312 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCCTGGCGTTGGAGGCCAGCACACACCT

ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT  
\*\*\*\*\*

BD175312 361 GCTGGTGTTCGGCATGGAGCAGCGGTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT

ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
\*\*\*\*\*

BD175312 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC

ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
\*\*\*\*\*

BD175312 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA

ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
\*\*\*\*\*

BD175312 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT

ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
\*\*\*\*\*

BD175312 601 CGACGTGACCGAGGCCGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT

ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCTGGCGTCCGGCGCCCAACAAGCT  
 \*\*\*\*\*  
 BD175312 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCTGGCGTCCGGCGCCCAACAAGCT  
  
 ss.DNA33461 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
 \*\*\*\*\*  
 BD175312 721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA  
  
 ss.DNA33461 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
 \*\*\*\*\*  
 BD175312 781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC  
  
 ss.DNA33461 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
 \*\*\*\*\*  
 BD175312 841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC  
  
 ss.DNA33461 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
 \*\*\*\*\*  
 BD175312 901 CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG  
  
 ss.DNA33461 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
 \*\*\*\*\*  
 BD175312 961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC  
  
 ss.DNA33461 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
 \*\*\*\*\*  
 BD175312 1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC  
  
 ss.DNA33461 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
 \*\*\*\*\*  
 BD175312 1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC  
  
 ss.DNA33461 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
 \*\*\*\*\*  
 BD175312 1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT  
  
 ss.DNA33461 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
 \*\*\*\*\*  
 BD175312 1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT  
  
 ss.DNA33461 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC  
 \*\*\*\*\*  
 BD175312 1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC  
  
 ss.DNA33461 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT  
 \*\*\*\*\*  
 BD175312 1321 ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT  
  
 ss.DNA33461 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA  
 \*\*\*\*\*  
 BD175312 1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA  
  
 ss.DNA33461 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT  
 \*\*\*\*\*  
 BD175312 1441 ACCTGAGGGCAGAAAGCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT  
  
 ss.DNA33461 1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC



\*\*\*\*\*  
BD175312 1501 AAAGTCCTCCACCACCACCTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGTCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCATAAA  
\*\*\*\*\*

BD175312 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCATAAA

>27 NM\_020997 Homo sapiens left-right determination, factor B (LEFTB), mRNA.  
OMIM:603037 (1647 bp) [1 seg]  
Score = 1613 (3198 bits), Expect = 0.0  
Identities = 1615/1616 (99%), at 1,4-1616,1619, Strand +/+

ss.DNA33461 1 TGAGACCCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG  
\*\*\*\*\*

NM\_020997 4 TGAGACCCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461 61 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACCTCTGGGTGTTGCCCCCTGGCCAGCCC  
\*\*\*\*\*

NM\_020997 64 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACCTCTGGGTGTTGCCCCCTGGCCAGCCC

ss.DNA33461 121 CGGGGCCGCCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA  
\*\*\*\*\*

NM\_020997 124 CGGGGCCGCCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG  
\*\*\*\*\*

NM\_020997 184 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT  
\*\*\*\*\*

NM\_020997 244 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCCTGGCGTTGGAGGCCAGCACACACCT  
\*\*\*\*\*

NM\_020997 304 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCCTGGCGTTGGAGGCCAGCACACACCT

ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT  
\*\*\*\*\*

NM\_020997 364 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT

ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
\*\*\*\*\*

NM\_020997 424 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC

ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
\*\*\*\*\*

NM\_020997 484 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA

ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
\*\*\*\*\*

NM\_020997 544 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT

ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
\*\*\*\*\*

NM\_020997 604 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT

ss.DNA33461 661 GCTACAGGTGTTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCAAGCT

```

*****
NM_020997      664 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCACAAGCT
ss.DNA33461    721 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
*****
NM_020997      724 GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
ss.DNA33461    781 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC
*****
NM_020997      784 CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC
ss.DNA33461    841 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
*****
NM_020997      844 CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
ss.DNA33461    901 CGAGAACTGGGTGCTGGAGCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG
*****
NM_020997      904 CGAGAACTGGGTGCTGGAGCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG
ss.DNA33461    961 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
*****
NM_020997      964 GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
ss.DNA33461   1021 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC
*****
NM_020997     1024 CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC
ss.DNA33461   1081 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
*****
NM_020997     1084 CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
ss.DNA33461   1141 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
*****
NM_020997     1144 GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
ss.DNA33461   1201 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
*****
NM_020997     1204 GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
ss.DNA33461   1261 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
*****
NM_020997     1264 GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
ss.DNA33461   1321 ACCTAATTTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
*****
NM_020997     1324 ACCTAATTTTTTGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
ss.DNA33461   1381 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
*****
NM_020997     1384 TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
ss.DNA33461   1441 ACCTGAGGGCAGAAAGCCCAANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT
*****
NM_020997     1444 ACCTGAGGGCAGAAAGCCCAATGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCT
ss.DNA33461   1501 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC
*****

```

NM\_020997 1504 AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTTGTGCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA  
\*\*\*\*\*

NM\_020997 1564 CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

>28 BC027883 Homo sapiens, left-right determination, factor B, clone MGC:34249  
(1644 bp) [1 seg]

Score = 1609 (3190 bits), Expect = 0.0

Identities = 1614/1616 (99%), at 1,1-1616,1616, Strand +/-

ss.DNA33461 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG  
\*\*\*\*\*

BC027883 1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461 61 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC  
\*\*\*\*\*

BC027883 61 CAGCACCATGCAGCCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCC

ss.DNA33461 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA  
\*\*\*\*\*

BC027883 121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG  
\*\*\*\*\*

BC027883 181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT  
\*\*\*\*\*

BC027883 241 GGCCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCTGGCGTTGGAGGCCAGCACACACCT  
\*\*\*\*\*

BC027883 301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTTCTGGCGTTGGAGGCCAGCACACACCT

ss.DNA33461 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT  
\*\*\*\*\*

BC027883 361 GCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCT

ss.DNA33461 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC  
\*\*\*\*\*

BC027883 421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC

ss.DNA33461 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA  
\*\*\*\*\*

BC027883 481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA

ss.DNA33461 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT  
\*\*\*\*\*

BC027883 541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT

ss.DNA33461 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT  
\*\*\*\*\*

BC027883 601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCT

ss.DNA33461 661 GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCAAGCT  
\*\*\*\*\*

BC027883	661	GCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCACAAGCT
ss.DNA33461	721	GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA *****
BC027883	721	GGTCCGCTTTGCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
ss.DNA33461	781	CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC *****
BC027883	781	CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC
ss.DNA33461	841	CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC *****
BC027883	841	CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
ss.DNA33461	901	CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG *****
BC027883	901	CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG
ss.DNA33461	961	GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC *****
BC027883	961	GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
ss.DNA33461	1021	CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC *****
BC027883	1021	CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC
ss.DNA33461	1081	CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC *****
BC027883	1081	CCAGGTGGTCAGCCTGCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
ss.DNA33461	1141	GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT *****
BC027883	1141	GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
ss.DNA33461	1201	GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT *****
BC027883	1201	GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
ss.DNA33461	1261	GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC *****
BC027883	1261	GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
ss.DNA33461	1321	ACCTAATTTTGGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT *****
BC027883	1321	ACCTAATTTTGGCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
ss.DNA33461	1381	TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA *****
BC027883	1381	TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
ss.DNA33461	1441	ACCTGAGGGCAGAAAGCCCAANTGTGTCATTGTTTACTTGTCCTGTCACTGGATCTGGGCT ** *****
BC027883	1441	ACTTGAGGGCAGAAAGCCCAANTGTGTCATTGTTTACTTGTCCTGTCACTGGATCTGGGCT
ss.DNA33461	1501	AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC *****
BC027883	1501	AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC

ss.DNA33461 1561 CAATCCAGATAATAAAGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA  
\*\*\*\*\*  
BC027883 1561 CAATCCAGATAATAAAGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA

>29 P\_AAD45128 Human Lefty cDNA. (1688 bp) [1 seg]

Score = 1590 (3152 bits), Expect = 0.0

Identities = 1599/1601 (99%), Gaps = 1/1601 (0%), at 16,1-1616,1600, Strand +/+

ss.DNA33461 16 GCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGGCAGCACCATGCAGCC  
\*\*\*\*\*  
P\_AAD45128 1 GCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGGCAGCACCATGCAGCC  
  
ss.DNA33461 76 CCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCCCGGGGCCGCCCTGAC  
\*\*\*\*\*  
P\_AAD45128 61 CCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCCCGGGGCCGCCCTGAC  
  
ss.DNA33461 136 CGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAAAGAGGTGCCCCACCCT  
\*\*\*\*\*  
P\_AAD45128 121 CGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAAAGAGGTGCCCCACCCT  
  
ss.DNA33461 196 GGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAGGGCCAGTACGTGGC  
\*\*\*\*\*  
P\_AAD45128 181 GGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAGGGCCAGTACGTGGC  
  
ss.DNA33461 256 CCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTTTCAGCCAGAGCTTCCG  
\*\*\*\*\*  
P\_AAD45128 241 CCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTTTCAGCCAGAGCTTCCG  
  
ss.DNA33461 316 AGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCTGCTGGTGTTCCGGCAT  
\*\*\*\*\*  
P\_AAD45128 301 AGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCTGCTGGTGTTCCGGCAT  
  
ss.DNA33461 376 GGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCTGCGGCTCTTCCAGGA  
\*\*\*\*\*  
P\_AAD45128 361 GGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCTGCGGCTCTTCCAGGA  
  
ss.DNA33461 436 GCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCCGCGCAGCGCCCCGGGC  
\*\*\*\*\*  
P\_AAD45128 421 GCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCCGCGCAGCGCCCCGGGC  
  
ss.DNA33461 496 CCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAACCGCACCTCCCTCAT  
\*\*\*\*\*  
P\_AAD45128 481 CCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAACCGCACCTCCCTCAT  
  
ss.DNA33461 556 CGACTCCAGGCTGGTGTCCTGCCACGAGAGCGGCTGGAAGGCCTTCGACGTGACCGAGGC  
\*\*\*\*\*  
P\_AAD45128 541 CGACTCCAGGCTGGTGTCCTGCCACGAGAGCGGCTGGAAGGCCTTCGACGTGACCGAGGC  
  
ss.DNA33461 616 CGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCTGCTACAGGTGTCGGT  
\*\*\*\*\*  
P\_AAD45128 601 CGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCTGCTACAGGTGTCGGT  
  
ss.DNA33461 676 GCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCCACAAGCTGGTCCGCTTTGCCTC  
\*\*\*\*\*  
P\_AAD45128 661 GCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCCACAAGCTGGTCCGCTTTGCCTC

ss.DNA33461 736 GCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCACACCCTGGACCTTGG  
 \*\*\*\*\*  
 P\_AAD45128 721 GCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCACACCCTGGACCTTGG  
  
 ss.DNA33461 796 GGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGACCGAGGGCACC CGCTG  
 \*\*\*\*\*  
 P\_AAD45128 781 GGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGACCGAGGGCACC CGCTG  
  
 ss.DNA33461 856 CTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGCCGAGA ACTGGGTGCT  
 \*\*\*\*\*  
 P\_AAD45128 841 CTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGCCGAGA ACTGGGTGCT  
  
 ss.DNA33461 916 GGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCGGCAGCCCCCGGAGGC  
 \*\*\*\*\*  
 P\_AAD45128 901 GGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCGGCAGCCCCCGGAGGC  
  
 ss.DNA33461 976 CCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGCCTCGGAGACTGACTC  
 \*\*\*\*\*  
 P\_AAD45128 961 CCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGCCTCGGAGACTGACTC  
  
 ss.DNA33461 1036 GCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCCCCAGGTGGTCAGCCT  
 \*\*\*\*\*  
 P\_AAD45128 1021 GCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCCCCAGGTGGTCAGCCT  
  
 ss.DNA33461 1096 GCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGCCTCGTGCCAAGGAG  
 \*\*\*\*\*  
 P\_AAD45128 1081 GCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGCCTCGTGCCAAGGAG  
  
 ss.DNA33461 1156 GCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTTGTGTGTGTTTCTGAA  
 \*\*\*\*\*  
 P\_AAD45128 1141 GCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTTGTGTGTGTTTCTGAA  
  
 ss.DNA33461 1216 GTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGATGGACAAATGCTCTGT  
 \*\*\*\*\*  
 P\_AAD45128 1201 GTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGATGGACAAATGCTCTGT  
  
 ss.DNA33461 1276 GCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTCACCTAATTTTGTCTT  
 \*\*\*\*\*  
 P\_AAD45128 1261 GCTCTCTA-TGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTCACCTAATTTTGTCTT  
  
 ss.DNA33461 1336 CTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTTTTCTCTATTCTTATT  
 \*\*\*\*\*  
 P\_AAD45128 1320 CTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTTTTCTCTATTCTTATT  
  
 ss.DNA33461 1396 ATTCAGTGCCTATATTCTAAGCACTTACATGTGGAGATACTGTAACCTGAGGGCAGAAA  
 \*\*\*\*\*  
 P\_AAD45128 1380 ATTCAGTGCCTATATTCTAAGCACTTACATGTGGAGATACTGTAACCTGAGGGCAGAAA  
  
 ss.DNA33461 1456 GCCCANTGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCTAAAGTCTCCACCAC  
 \*\*\*\*\*  
 P\_AAD45128 1440 GCCCAATGTGTCATTGTTTACTTGTCTGTCACTGGATCTGGGCTAAAGTCTCCACCAC  
  
 ss.DNA33461 1516 CACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGTCATCCCCAATCCAGATAATAA  
 \*\*\*\*\*  
 P\_AAD45128 1500 CACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGTCATCCCCAATCCAGATAATAA  
  
 ss.DNA33461 1576 AGACTTTGTAAACATGAATAAAACACATTTTATTCTAAAA

\*\*\*\*\*  
P\_AAD45128 1560 AGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

>30 P\_AAX31925 Human lefty protein encoding DNA. (1688 bp) [1 seg]

Score = 1590 (3152 bits), Expect = 0.0

Identities = 1599/1601 (99%), Gaps = 1/1601 (0%), at 16,1-1616,1600, Strand +/+

```
ss.DNA33461 16 GCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGGCAGCACCATGCAGCC
*****
P_AAX31925 1 GCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGGCAGCACCATGCAGCC

ss.DNA33461 76 CCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCCCGGGGCCGCCCTGAC
*****
P_AAX31925 61 CCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCTGGCCAGCCCCGGGGCCGCCCTGAC

ss.DNA33461 136 CGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAAAGAGGTGCCCCACCCT
*****
P_AAX31925 121 CGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAAAGAGGTGCCCCACCCT

ss.DNA33461 196 GGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAGGGCCAGTACGTGGC
*****
P_AAX31925 181 GGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAGGGCCAGTACGTGGC

ss.DNA33461 256 CCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTTTCAGCCAGAGCTTCCG
*****
P_AAX31925 241 CCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTTTCAGCCAGAGCTTCCG

ss.DNA33461 316 AGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCTGCTGGTGTTCGGCAT
*****
P_AAX31925 301 AGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCTGCTGGTGTTCGGCAT

ss.DNA33461 376 GGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCTGCGGCTCTTCCAGGA
*****
P_AAX31925 361 GGAGCAGCGGCTGCCGCCCAACAGCGAGCTGGTGCAGGCCGTGCTGCGGCTCTTCCAGGA

ss.DNA33461 436 GCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCCGCGCAGCGCCCCGGGC
*****
P_AAX31925 421 GCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCCGCGCAGCGCCCCGGGC

ss.DNA33461 496 CCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAACCGCACCTCCCTCAT
*****
P_AAX31925 481 CCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAACCGCACCTCCCTCAT

ss.DNA33461 556 CGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTTCGACGTGACCGAGGC
*****
P_AAX31925 541 CGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTTCGACGTGACCGAGGC

ss.DNA33461 616 CGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCTGCTACAGGTGTGGT
*****
P_AAX31925 601 CGTGAACTTCTGGCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCTGCTACAGGTGTGGT

ss.DNA33461 676 GCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCCACAAGCTGGTCCGCTTTGCCTC
*****
P_AAX31925 661 GCAGAGGGAGCATCTGGGCCCCGCTGGCGTCCGGCGCCCCACAAGCTGGTCCGCTTTGCCTC

ss.DNA33461 736 GCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCACACCCTGGACCTTGG
*****
```

P\_AAX31925 721 GCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCACACCCTGGACCTTGG

ss.DNA33461 796 GGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGACCGAGGGCACCCGCTG  
\*\*\*\*\*

P\_AAX31925 781 GGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGACCGAGGGCACCCGCTG

ss.DNA33461 856 CTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGCCGAGAACTGGGTGCT  
\*\*\*\*\*

P\_AAX31925 841 CTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGCCGAGAACTGGGTGCT

ss.DNA33461 916 GGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCGGCAGCCCCCGGAGGC  
\*\*\*\*\*

P\_AAX31925 901 GGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCGGCAGCCCCCGGAGGC

ss.DNA33461 976 CCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGCCTCGGAGACTGACTC  
\*\*\*\*\*

P\_AAX31925 961 CCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGCCTCGGAGACTGACTC

ss.DNA33461 1036 GCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCCCCAGGTGGTCAGCCT  
\*\*\*\*\*

P\_AAX31925 1021 GCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCCCCAGGTGGTCAGCCT

ss.DNA33461 1096 GCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGCCTCGTGCCAAGGAG  
\*\*\*\*\*

P\_AAX31925 1081 GCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGCCTCGTGCCAAGGAG

ss.DNA33461 1156 GCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTTGTGTGTGTTTCTGAA  
\*\*\*\*\*

P\_AAX31925 1141 GCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTTGTGTGTGTTTCTGAA

ss.DNA33461 1216 GTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGATGGACAAATGCTCTGT  
\*\*\*\*\*

P\_AAX31925 1201 GTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGATGGACAAATGCTCTGT

ss.DNA33461 1276 GCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTCACCTAATTTTGTCTT  
\*\*\*\*\*

P\_AAX31925 1261 GCTCTCTA-TGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTCACCTAATTTTGTCTT

ss.DNA33461 1336 CTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTTTTCTCTATTCTTATT  
\*\*\*\*\*

P\_AAX31925 1320 CTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTTTTCTCTATTCTTATT

ss.DNA33461 1396 ATTCAGTGCCTATATTCTAAGCACTTACATGTGGAGATACTGTAACCTGAGGGCAGAAA  
\*\*\*\*\*

P\_AAX31925 1380 ATTCAGTGCCTATATTCTAAGCACTTACATGTGGAGATACTGTAACCTGAGGGCAGAAA

ss.DNA33461 1456 GCCCANTGTGTCATTGTTTACTTGTCTGTCTGCTGATCTGGGCTAAAGTCCTCCACCAC  
\*\*\*\*\*

P\_AAX31925 1440 GCCCAATGTGTCATTGTTTACTTGTCTGTCTGCTGATCTGGGCTAAAGTCCTCCACCAC

ss.DNA33461 1516 CACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCCCAATCCAGATAATAA  
\*\*\*\*\*

P\_AAX31925 1500 CACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCCCAATCCAGATAATAA

ss.DNA33461 1576 AGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA  
\*\*\*\*\*

P\_AAX31925 1560 AGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA



>31 P\_ABQ55009 Human ovarian antigen HUKJ46 cDNA, SEQ ID NO:889. (1616 bp) [1 seg]

Score = 1587 (3146 bits), Expect = 0.0

Identities = 1606/1616 (99%), Gaps = 2/1616 (0%), at 1,3-1616,1616, Strand +/-

```
ss.DNA33461      1 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG
*****
P_ABQ55009       3 TGAGACCCTCCTGCAGCCTTCTCAAGGGACAGCCCCACTCTGCCTCTTGCTCCTCCAGGG

ss.DNA33461     61 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCCTGGCCAGCCC
*****
P_ABQ55009      63 CAGCACCATGCAGCCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCCCTGGCCAGCCC

ss.DNA33461    121 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA
*****
P_ABQ55009     123 CGGGGCCGCCCTGACCGGGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAA

ss.DNA33461    181 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG
*****
P_ABQ55009     183 AGAGGTGCCCACCCTGGACAGGGCCGACATGGAGGAGCTGGTCATCCCCACCCACGTGAG

ss.DNA33461    241 GGCCAGTACGTGGCCCTGCTGCAGCGCAGCCACGGGGACCGCTCCCGCGGAAAGAGGTT
*****
P_ABQ55009     243 GGCCAGTACGTGGCCCTGCTGCAGCGCARCCACGGGGACCGCTCCCGCGGAAAGAGGTT

ss.DNA33461    301 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCT
*****
P_ABQ55009     303 CAGCCAGAGCTTCCGAGAGGTGGCCGGCAGGTTCTTGGCGTTGGAGGCCAGCACACACCT

ss.DNA33461    361 GCTGGTGTTCGGCATGGAGCAGCGGTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT
*****
P_ABQ55009     363 GCTGGTGTTCGGCATGGAGCAGCGGTGCCGCCAACAGCGAGCTGGTGCAGGCCGTGCT

ss.DNA33461    421 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC
*****
P_ABQ55009     423 GCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCC

ss.DNA33461    481 GCGCAGCGCCCGGGCCCGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAA
*****
P_ABQ55009     483 GCGCAGC--CCGGGCCCGGGTGAMCGTCGAGTGGCTKCGCGTCCGCGACGACGGCTYCAA

ss.DNA33461    541 CCGCACCTCCCTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT
*****
P_ABQ55009     541 MCGCACTTCNTCATCGACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTT

ss.DNA33461    601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCCGGCAGCCGTGCT
*****
P_ABQ55009     601 CGACGTGACCGAGGCCGTGAACCTTCTGGCAGCAGCTGAGCCGGCCCCCGGCAGCCGTGCT

ss.DNA33461    661 GCTACAGGTGTTCGGTGAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCAAGCT
*****
P_ABQ55009     661 GCTACAGGTGTTCGGTGAGAGGGAGCATCTGGGCCCGCTGGCGTCCGGCGCCCAAGCT

ss.DNA33461    721 GGTCCGCTTTGCCTCGCAGGGGGGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
*****
P_ABQ55009     721 GGTCCGCTTTGCCTCGCAGGGGGGCCAGCCGGGCTTGGGGAGCCCCAGCTGGAGCTGCA
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ss.DNA33461	781	CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC
		*****
P_ABQ55009	781	CACCCTGGACCTTGGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACCAATGAC
ss.DNA33461	841	CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
		*****
P_ABQ55009	841	CGAGGGCACCCGCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGC
ss.DNA33461	901	CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG
		*****
P_ABQ55009	901	CGAGAACTGGGTGCTGGAGCCCCCGGGCTTCCTGGCTTATGAGTGTGTGGGCACCTGCCG
ss.DNA33461	961	GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
		*****
P_ABQ55009	961	GCAGCCCCCGGAGGCCCTGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGC
ss.DNA33461	1021	CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC
		*****
P_ABQ55009	1021	CTCGGAGACTGACTCGCTGCCCATGATCGTCAGCATCAAGGAGGGAGGCAGGACCAGGCC
ss.DNA33461	1081	CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
		*****
P_ABQ55009	1081	CCAGGTGGTCAGCCTGCCCCAACATGAGGGTGCAGAAGTGCAGCTGTGCCTCGGATGGTGC
ss.DNA33461	1141	GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
		*****
P_ABQ55009	1141	GCTCGTGCCAAGGAGGCTCCAGCCATAGGCGCCTAGTGTAGCCATCGAGGGACTTGACTT
ss.DNA33461	1201	GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
		*****
P_ABQ55009	1201	GTGTGTGTTTCTGAAGTGTTTCGAGGGTACCAGGAGAGCTGGCGATGACTGAACTGCTGAT
ss.DNA33461	1261	GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
		*****
P_ABQ55009	1261	GGACAAATGCTCTGTGCTCTCTAGTGAGCCCTGAATTTGCTTCCTCTGACAAGTTACCTC
ss.DNA33461	1321	ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
		*****
P_ABQ55009	1321	ACCTAATTTTGTCTTCTCAGGAATGAGAATCTTTGGCCACTGGAGAGCCCTTGCTCAGTT
ss.DNA33461	1381	TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
		*****
P_ABQ55009	1381	TTCTCTATTCTTATTATTCACTGCACTATATTCTAAGCACTTACATGTGGAGATACTGTA
ss.DNA33461	1441	ACCTGAGGGCAGAAAGCCCAANTGTGTCAATTGTTTACTTGTCTGTCACTGGATCTGGGCT
		*****
P_ABQ55009	1441	ACCTGAGGGCAGAAAGCCCAANTGTGTCAATTGTTTACTTGTCTGTCACTGGATCTGGGCT
ss.DNA33461	1501	AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
		*****
P_ABQ55009	1501	AAAGTCCTCCACCACCACTCTGGACCTAAGACCTGGGGTTAAGTGTGGGTGTGCATCCC
ss.DNA33461	1561	CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA
		*****
P_ABQ55009	1561	CAATCCAGATAATAAAGACTTTGTAAAACATGAATAAAACACATTTTATTCTAAAA

GenBank (Release 137, aug 2003)

P\_ACD23222 Human PRO polynucleotide #20. 616 bp, cDNA, PAT 26-AUG-2003

ACCESSION P\_ACD23222

KEYWORDS Human; PRO; gene; ss; Parkinson's disease; Alzheimer's disease; ALS; amyotrophic lateral sclerosis; neuropathy; cancer; viral infection; AIDS; Usher's syndrome; haemorrhage; enterocolitis; Zollinger-Ellison syndrome; gastrointestinal ulceration; congenital microvillus atrophy; psoriasis; skin disease; endometrial bleeding; angiogenesis; ischaemic condition; asthma; rheumatoid arthritis; multiple sclerosis; inflammatory disease; atherosclerosis; infertility; birth defect; premature aging; stroke; diabetic complication; patent; GENESEQ patentdb.

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 1616)

AUTHORS Ashkenazi,A., Botstein,D., Desnoyers,L., Eaton,D.L., Ferrara,N. Filvaroff,E., Fong,S., Gao,W., Gerber,H., Gerritsen,M.E., Goddard,A. Godowski,P.J., Grimaldi,J.C., Gurney,A.L., Hillan,K.J., Kljavin,I.J. Mather,J.P., Pan,J., Paoni,N.F., Roy,M.A., Stewart,T.A., Tumas,D. Williams,P.M., Wood,W.I.

TITLE Novel isolated PRO polypeptides e.g. PRO245 and PRO1868, useful for treating e.g. Parkinson's disease, Alzheimer's disease, amyotrophic lateral sclerosis, cancer, neuropathies, diabetes and psoriasis -

JOURNAL Patent: US2003064367-A1; Filing Date: 13-JUL-2001; 2001US-0904485;

Publication Date: 03-APR-2003; Priority: 10-SEP-1998;

98WO-US18824. 14-SEP-1998; 98WO-US19177. 16-SEP-1998;  
98WO-US19330. 17-SEP-1998; 98WO-US19437. 01-DEC-1998;  
98WO-US25108. 08-SEP-1999; 99WO-US20594. 13-SEP-1999;  
99WO-US20944. 15-SEP-1999; 99WO-US21090. 15-SEP-1999;  
99WO-US21547. 05-OCT-1999; 99WO-US23089. 29-NOV-1999;  
99WO-US28214. 30-NOV-1999; 99WO-US28313. 01-DEC-1999;  
99WO-US28301. 02-DEC-1999; 99WO-US28564. 02-DEC-1999;  
99WO-US28565. 16-DEC-1999; 99WO-US30095. 20-DEC-1999;  
99WO-US30911. 20-DEC-1999; 99WO-US30999. 05-JAN-2000;  
2000WO-US00219. 11-FEB-2000; 2000WO-US03565. 22-FEB-2000;  
2000WO-US04414. 24-FEB-2000; 2000WO-US05004. 02-MAR-2000;  
2000WO-US05841. 20-MAR-2000; 2000WO-US07377. 30-MAR-2000;  
2000WO-US08439. 22-MAY-2000; 2000WO-US14042. 02-JUN-2000;  
2000WO-US15264. 28-JUL-2000; 2000WO-US20710. 24-AUG-2000;  
2000WO-US23328. 17-SEP-1997; 97US-059113P. 17-SEP-1997;  
97US-059115P. 17-SEP-1997; 97US-059117P. 17-SEP-1997;  
97US-059119P. 17-SEP-1997; 97US-059121P. 17-SEP-1997;  
97US-059122P. 17-SEP-1997; 97US-059184P. 18-SEP-1997;  
97US-059263P. 18-SEP-1997; 97US-059266P. 15-OCT-1997;  
97US-062125P. 17-OCT-1997; 97US-062285P. 17-OCT-1997;  
97US-062287P. 21-OCT-1997; 97US-063486P. 24-OCT-1997;  
97US-062814P. 24-OCT-1997; 97US-062816P. 24-OCT-1997;  
97US-063045P. 24-OCT-1997; 97US-063120P. 24-OCT-1997;  
97US-063121P. 24-OCT-1997; 97US-063127P. 24-OCT-1997;  
97US-063128P. 27-OCT-1997; 97US-063327P. 27-OCT-1997;  
97US-063329P. 28-OCT-1997; 97US-063541P. 28-OCT-1997;  
97US-063542P. 28-OCT-1997; 97US-063544P. 28-OCT-1997;  
97US-063549P. 28-OCT-1997; 97US-063550P. 28-OCT-1997;  
97US-063564P. 29-OCT-1997; 97US-063435P. 29-OCT-1997;  
97US-063704P. 29-OCT-1997; 97US-063732P. 29-OCT-1997;  
97US-063734P. 29-OCT-1997; 97US-063735P. 29-OCT-1997;

97US-063738P. 29-OCT-1997; 97US-064215P. 31-OCT-1997;  
 97US-063870P. 31-OCT-1997; 97US-064103P. 03-NOV-1997;  
 97US-064248P. 07-NOV-1997; 97US-064809P. 12-NOV-1997;  
 97US-065186P. 17-NOV-1997; 97US-065846P. 18-NOV-1997;  
 97US-065693P. 21-NOV-1997; 97US-066120P. 21-NOV-1997;  
 97US-066364P. 24-NOV-1997; 97US-066453P. 24-NOV-1997;  
 97US-066466P. 24-NOV-1997; 97US-066511P. 24-NOV-1997;  
 97US-066770P. 24-NOV-1997; 97US-066772P. 25-NOV-1997;  
 97US-066840P. 12-DEC-1997; 97US-069425P. 04-JUN-1998;  
 98US-088026P. 10-SEP-1998; 98US-099803P. 14-SEP-1998;  
 98US-100262P. 17-SEP-1998; 98US-100858P. 13-OCT-1998;  
 98US-104080P. 20-NOV-1998; 98US-109304P. 22-DEC-1998;  
 98US-113296P. 07-JUL-1999; 99US-143048P. 26-JUL-1999;  
 99US-145698P. 28-JUL-1999; 99US-146222P. 18-SEP-2000;

2000US-0665350; Assignee: (GETH ) GENENTECH INC; Cross Reference:  
 WPI; 2003-567176/53. P-PSDB; ABO17513; Patent Format: Claim 2; Fig  
 41; 477pp; English.

COMMENT The invention relates to human PRO polypeptides and the  
 polynucleotides encoding them. The polypeptides and polynucleotides  
 are used for treating diseases related to growth or survival of  
 nerve cells such as Parkinson's disease, Alzheimer's disease,  
 amyotrophic lateral sclerosis (ALS) and neuropathies, diseases  
 related to uncontrolled cell growth such as cancer, viral  
 infections, Usher's syndrome, haemorrhage, enterocolitis,  
 Zollinger-Ellison syndrome, gastrointestinal ulceration, congenital  
 microvillus atrophy, skin diseases such as psoriasis and epithelial  
 cancers, endometrial bleeding, angiogenesis, ischaemic conditions,  
 asthma, rheumatoid arthritis, multiple sclerosis, inflammatory  
 diseases, atherosclerosis, cardiac injury, infertility, birth  
 defects, premature aging, AIDS, stroke and diabetic complications.  
 The polynucleotides are also useful in chromosome and gene mapping.  
 This sequence represents a human PRO polynucleotide of the  
 invention.

FEATURES Location/Qualifiers  
 BASE COUNT 294 a 497 c 506 g 318 t 1 others  
 ORIGIN

P\_ABX71541 Human cDNA encoding secreted/transmembrane protein PRO317. 616 bp,  
 cDNA, PAT 10-MAR-2003

ACCESSION P\_ABX71541

KEYWORDS Human; PRO; secreted protein; transmembrane protein; enterocolitis;  
 gastrointestinal ulceration; skin disease; ss; gene; abnormal  
 keratinocyte differentiation; psoriasis; epithelial cancer; squamous  
 cell carcinoma; Alzheimer's disease; Parkinson's disease;  
 amyotrophic lateral sclerosis; inflammatory disease; rheumatoid  
 arthritis; asthma; multiple sclerosis; organ failure;  
 atherosclerosis; cardiac injury; infertility; birth defect;  
 premature aging; AIDS; acquired immunodeficiency syndrome; cancer;  
 diabetic complication; wound repair; patent; GENESEQ patentdb.

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 1616)

AUTHORS Ashkenazi,A., Botstein,D., Desnoyers,L., Eaton,D.L., Ferrara,N.  
 Filvaroff,E., Fong,S., Gao,W., Gerber,H., Gerritsen,M.E.,  
 Goddard,A. Godowski,P.J., Grimaldi,J.C., Gurney,A.L.,  
 Hillan,K.J., Kljavin,I.J. Mather,J.P., Pan,J., Paoni,N.F.,  
 Roy,M.A., Stewart,T.A., Tumas,D. Williams,P.M., Wood,W.I.

TITLE New PRO polypeptides and nucleic acid molecules, useful in diagnosing or treating inflammatory diseases, organ failure, atherosclerosis, cardiac injury, infertility, cancer, AIDS, Alzheimer's disease or Parkinson's disease -

JOURNAL Patent: US2002132240-A1; Filing Date: 18-JUL-2001; 2001US-0909320; Publication Date: 19-SEP-2002; Priority: 10-SEP-1998; 98WO-US18824. 14-SEP-1998; 98WO-US19177. 16-SEP-1998; 98WO-US19330. 17-SEP-1998; 98WO-US19437. 01-DEC-1998; 98WO-US25108. 08-SEP-1999; 99WO-US20594. 13-SEP-1999; 99WO-US20944. 15-SEP-1999; 99WO-US21090. 15-SEP-1999; 99WO-US21547. 05-OCT-1999; 99WO-US23089. 01-DEC-1999; 99WO-US28301. 02-DEC-1999; 99WO-US28564. 02-DEC-1999; 99WO-US28565. 16-DEC-1999; 99WO-US30095. 20-DEC-1999; 99WO-US30911. 20-DEC-1999; 99WO-US30999. 06-JAN-2000; 2000WO-US00219. 11-FEB-2000; 2000WO-US03565. 22-FEB-2000; 2000WO-US04414. 28-JUL-2000; 2000WO-US20710. 24-AUG-2000; 2000WO-US23328. 17-SEP-1997; 97US-059113P. 17-SEP-1997; 97US-059115P. 17-SEP-1997; 97US-059117P. 15-OCT-1997; 97US-062125P. 17-OCT-1997; 97US-062285P. 17-OCT-1997; 97US-062287P. 21-OCT-1997; 97US-063486P. 24-OCT-1997; 97US-062814P. 24-OCT-1997; 97US-062816P; Assignee: (GETH ) GENENTECH INC; Cross Reference: WPI; 2003-147434/14. P-PSDB; ABU54366; Patent Format: Claim 2; Fig 41; 473pp; English.

COMMENT The invention relates to an isolated PRO polypeptide having at least 80% amino acid sequence identity to: (a) any one of 61 fully defined amino acid sequences given in the specification (appearing as ABU54347- ABU54407); (b) an amino acid sequence encoded by the nucleotide sequence deposited under American Type Culture Collection (accession numbers listed in the specification); (c) any one of the PRO sequences which lacks its associated signal peptide; (d) an extracellular domain of the PRO polypeptide with its associated signal peptide; or (e) an extracellular domain of the PRO polypeptide which lacks its associated signal peptide. Also include are the nucleic acids encoding the PRO polypeptides, vectors, host cells and anti-PRO antibodies. The PRO polypeptides and nucleic acids are useful in diagnosing or treating enterocolitis, gastrointestinal ulceration, skin diseases associated with abnormal keratinocyte differentiation, e.g. psoriasis or epithelial cancers such as squamous cell carcinoma, Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, inflammatory diseases, e.g. rheumatoid arthritis, asthma or multiple sclerosis, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, cancer, diabetic complications, or mutations in general. The polypeptides are also useful for wound repair and associated therapies concerned with re-growth of tissue. The nucleotide sequences may be used as hybridisation probes in chromosome and gene mapping, or in generating antisense RNA and DNA. PRO nucleic acids are also useful in preparing PRO polypeptides, in assays to identify other proteins or molecules involved in binding reaction, to generate transgenic animals or knockout animals, which in turn are useful in the development and screening of therapeutically useful reagents, for chromosome identification, and tissue typing. The PRO polypeptides and nucleic acid molecules are also useful in gene therapy, and as molecular weight markers for protein electrophoresis purposes. The anti-PRO antibodies may be used in diagnostic assays for PRO, or for the affinity purification of PRO from recombinant cell culture or natural sources. The present

sequence encodes a PRO polypeptide.

FEATURES                      Location/Qualifiers  
BASE COUNT            294 a      497 c      506-g      318 t            1 others  
ORIGIN

P\_ACD20098   Human secreted / transmembrane polypeptide PRO317 cDNA. 616 bp,  
cDNA, PAT 25-AUG-2003

ACCESSION    P\_ACD20098

KEYWORDS     Human; ss; gene; gene therapy; tumour; tissue typing; obesity;  
diabetes; hypoinsulinaemia; hyperinsulinaemia; vascular  
permeability; cardiac insufficiency disorder; immune response;  
regeneration; cartilage; auditory hair cell; hearing loss; bone  
disorder; sports injury; arthritis; patent; GENESEQ patentdb.

SOURCE       Homo sapiens.

ORGANISM     Homo sapiens.

REFERENCE    1 (bases 1 to 1616)

AUTHORS      Ashkenazi,A., Botstein,D., Desnoyers,L., Eaton,D.L., Ferrara,N.  
Filvaroff,E., Fong,S., Gao,W., Gerber,H., Gerritsen,M.E.,  
Goddard,A. Godowski,P.J., Grimaldi,J.C., Gurney,A.L.,  
Hillan,K.J., Kljavin,I.J. Mather,J.P., Pan,J., Paoni,N.F.,  
Roy,M.A., Stewart,T.A., Tumas,D. Williams,P.M., Wood,W.I..

TITLE        Novel secreted and transmembrane polypeptide for modulating  
biological activity of cell expressing the polypeptide, identifying  
agonists or antagonists of polypeptide, and as molecular weight  
markers

JOURNAL      Patent: US2003036060-A1; Filing Date: 12-JUL-2001; 2001US-0904859;  
Publication Date: 20-FEB-2003; Priority: 10-SEP-1998;  
98WO-US18824. 14-SEP-1998;    98WO-US19177. 16-SEP-1998;  
98WO-US19330. 17-SEP-1998;    98WO-US19437. 01-DEC-1998;  
98WO-US25108. 08-SEP-1999;    99WO-US20594. 13-SEP-1999;  
99WO-US20944. 15-SEP-1999;    99WO-US21090. 15-SEP-1999;  
99WO-US21547. 05-OCT-1999;    99WO-US23089. 29-NOV-1999;  
99WO-US28214. 30-NOV-1999;    99WO-US28313. 01-DEC-1999;  
99WO-US28301. 02-DEC-1999;    99WO-US28564. 02-DEC-1999;  
99WO-US28565. 16-DEC-1999;    99WO-US30095. 20-DEC-1999;  
99WO-US30911. 20-DEC-1999;    99WO-US30999. 05-JAN-2000;  
2000WO-US00219. 11-FEB-2000;    2000WO-US03565. 22-FEB-2000;  
2000WO-US04414. 24-FEB-2000;    2000WO-US05004. 02-MAR-2000;  
2000WO-US05841. 20-MAR-2000;    2000WO-US07377. 30-MAR-2000;  
2000WO-US08439. 22-MAY-2000;    2000WO-US14042. 02-JUN-2000;  
2000WO-US15264. 28-JUL-2000;    2000WO-US20710. 24-AUG-2000;  
2000WO-US23328. 17-SEP-1997;    97US-059113P. 17-SEP-1997;  
97US-059115P. 17-SEP-1997;    97US-059117P. 17-SEP-1997;  
97US-059119P. 17-SEP-1997;    97US-059121P. 17-SEP-1997;  
97US-059122P. 17-SEP-1997;    97US-059184P. 18-SEP-1997;  
97US-059263P. 18-SEP-1997;    97US-059266P. 15-OCT-1997;  
97US-062125P. 17-OCT-1997;    97US-062285P. 17-OCT-1997;  
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97US-063045P. 24-OCT-1997;    97US-063120P. 24-OCT-1997;  
97US-063121P. 24-OCT-1997;    97US-063127P. 24-OCT-1997;  
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97US-063329P. 28-OCT-1997;    97US-063541P. 28-OCT-1997;  
97US-063542P. 28-OCT-1997;    97US-063544P. 28-OCT-1997;  
97US-063549P. 28-OCT-1997;    97US-063550P. 28-OCT-1997;  
97US-063564P. 29-OCT-1997;    97US-063435P. 29-OCT-1997;  
97US-063704P. 29-OCT-1997;    97US-063732P. 29-OCT-1997;

97US-063734P. 29-OCT-1997; 97US-063735P. 29-OCT-1997;  
 97US-063738P. 29-OCT-1997; 97US-064215P. 31-OCT-1997;  
 97US-063870P. 31-OCT-1997; 97US-064103P. 03-NOV-1997;  
 97US-064248P. 07-NOV-1997; 97US-064809P. 12-NOV-1997;  
 97US-065186P. 17-NOV-1997; 97US-065846P. 18-NOV-1997;  
 97US-065693P. 21-NOV-1997; 97US-066120P. 21-NOV-1997;  
 97US-066364P. 24-NOV-1997; 97US-066453P. 24-NOV-1997;  
 97US-066466P. 24-NOV-1997; 97US-066511P. 24-NOV-1997;  
 97US-066770P. 24-NOV-1997; 97US-066772P. 25-NOV-1997;  
 97US-066840P. 12-DEC-1997; 97US-069425P. 04-JUN-1998;  
 98US-088026P. 10-SEP-1998; 98US-099803P. 14-SEP-1998;  
 98US-100262P. 17-SEP-1998; 98US-100858P. 13-OCT-1998;  
 98US-104080P. 20-NOV-1998; 98US-109304P. 22-DEC-1998;  
 98US-113296P. 07-JUL-1999; 99US-143048P. 26-JUL-1999;  
 99US-145698P. 28-JUL-1999; 99US-146222P. 18-SEP-2000;  
 2000US-0665350; Assignee: (GETH ) GENENTECH INC; Cross Reference:  
 WPI; 2003-417923/39. P-PSDB; ABO14884; Patent Format: Claim 2; Fig  
 41; 469pp; English.

COMMENT The invention relates to an isolated, secreted and transmembrane  
 polypeptide, termed PRO polypeptide. The polypeptide is useful for  
 identifying agonists or antagonists of the polypeptide, for  
 preparing variants of the polypeptide, as molecular weight markers  
 for protein electrophoresis purpose and the nucleic acid is useful  
 for recombinantly expressing those markers. The polypeptide is also  
 useful as therapeutic agent. PRO is useful in assays to identify  
 other proteins or molecules involved in binding interaction. The  
 nucleic acid is useful as hybridisation probes, in chromosome and  
 gene mapping, in generation of antisense RNA and DNA, in the  
 preparation of PRO polypeptide, for generating transgenic animals or  
 knockout animals which in turn are useful in the development and  
 screening of therapeutically useful reagents, to construct  
 hybridisation probes for mapping the gene which encodes the PRO and  
 for the genetic analysis of individuals with genetic disorders, in  
 gene therapy, for chromosome identification, as chromosome marker,  
 and for generating probes for polymerase chain reaction (PCR),  
 Northern analysis, Southern analysis and Western analysis. PRO  
 antibody is useful in diagnostic assays for PRO, e.g. detecting its  
 expression in specific cells, tissues or serum and for affinity  
 purification of PRO from recombinant cell culture or natural  
 sources. The polypeptide or its antibody is useful for the  
 preparation of medicament for treating conditions which is  
 responsive to the PRO polypeptide or anti-PRO antibody e.g. tumour.  
 The polypeptide and the nucleic acid is useful for tissue typing.  
 The polypeptide is useful for treating obesity, diabetes or hypo- or  
 hyper-insulinaemia and cardiac insufficiency disorders, for  
 inhibiting tumour growth, enhances vascular permeability and immune  
 response, for inducing regeneration of auditory hair cells and for  
 treating hearing loss in mammals and for treating bone and/or  
 cartilage disorders such as sports injuries and arthritis. The  
 present sequence represents cDNA encoding a human secreted and  
 transmembrane PRO polypeptide.

FEATURES Location/Qualifiers  
 BASE COUNT 294 a 497 c 506 g 318 t 1 others  
 ORIGIN

P\_AAF72392 Human PRO317 cDNA. 616 bp, cDNA, PAT 24-APR-2001  
 ACCESSION P\_AAF72392

KEYWORDS Human; PRO; dermatological; antipsoriatic; cytostatic; antiinflammatory; antiparkinsonian nootropic; neuroprotective; vulnerary; cardiant; antiangiogenic; vasotropic; antiasthmatic; antirheumatic; cancer; antiarthritic; antiinfertility; antidiabetic; antiviral; diabetes; ophthalmological; gene therapy; skin disease; gastrointestinal disorder; ischaemia; inflammation; patent; GENESEQ patentdb.

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 1616)

AUTHORS Ashkenazi,A.J., Botstein,D., Desnoyers,L., Eaton,D.L., Ferrara,N. Filvaroff,E., Fong,S., Gao,W., Gerber,H., Gerritsen,M.E., Goddard,A. Godowski,P.J., Grimaldi,C.J., Gurney,A.L., Hillan,K.J., Kljavin,I.J. Mather,J.P., Pan,J., Paoni,N.F., Roy,M.A., Stewart,T.A., Tumas,D. Williams,P.M., Wood,W.I.

TITLE Sixty one nucleic acids encoding PRO polypeptides which are useful in the treatment of skin diseases (e.g. psoriasis), cancers (e.g. lung squamous cell carcinoma) and neurodegenerative diseases (e.g. Alzheimer's disease) -

JOURNAL Patent: WO200104311-A1; Filing Date: 22-FEB-2000; 2000WO-US04414; Publication Date: 18-JAN-2001; Priority: 07-JUL-1999; 99US-0143048. 26-JUL-1999; 99US-0145698. 28-JUL-1999; 99US-0146222. 08-SEP-1999; 99WO-US20594. 13-SEP-1999; 99WO-US20944. 15-SEP-1999; 99WO-US21090. 15-SEP-1999; 99WO-US21547. 05-OCT-1999; 99WO-US23089. 29-NOV-1999; 99WO-US28214. 30-NOV-1999; 99WO-US28313. 16-DEC-1999; 99WO-US30095. 20-DEC-1999; 99WO-US30911. 20-DEC-1999; 99WO-US30999. 05-JAN-2000; 99WO-US00219; Assignee: (GETH ) GENENTECH INC; Cross Reference: WPI; 2001-081051/09. P-PSDB; AAB80231; Patent Format: Claim 2; Fig 41; 393pp; English.

COMMENT The present sequence is one of sixty one nucleic acids encoding novel secreted and transmembrane PRO polypeptides. The PRO polypeptides are useful for treating skin diseases (e.g. psoriasis), cancers (e.g. lung squamous cell carcinoma), gastrointestinal disorders (e.g. enterocolitis), neurodegenerative diseases (e.g. Alzheimer's disease, Parkinson's disease), wound repair, cardiovascular disorders (e.g. endometrial bleeding angiogenesis, ischaemias such as coronary ischaemia, atherosclerosis), inflammatory disorders (e.g. asthma, rheumatoid arthritis, multiple sclerosis), infertility, AIDS and diabetes and retinal disorders such as retinitis pigmentosum. The PRO nucleic acids have applications in molecular biology, including use as hybridization probes, and in chromosome and gene mapping.

FEATURES Location/Qualifiers

BASE COUNT 294 a 497 c 506 g 318 t 1 others

ORIGIN

P\_AAF60376 PRO317 coding sequence. 616 bp, cDNA, PAT 27-APR-2001

ACCESSION P\_AAF60376

KEYWORDS Cytostatic; PRO protein; tumour; cancer; patent; GENESEQ patentdb.

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 1616)

AUTHORS Botstein,D., Goddard,A., Gurney,A.L., Hillan,K.J., Roy,M.A., Wood,W.I.

TITLE New antibody that binds to a PRO polypeptide, e.g. PRO187 and



PRO533, useful for diagnosing and treating cancers -

JOURNAL Patent: WO200105836-A1; Filing Date: 20-DEC-1999; 99WO-US30999;  
Publication Date: 25-JAN-2001; Priority: 20-JUL-1999;  
99US-0144758. 26-JUL-1999; 99US-0145698. 08-SEP-1999;  
99WO-US20594. 13-SEP-1999; 99WO-US20944. 15-SEP-1999;  
99WO-US21090. 05-OCT-1999; 99WO-US23089. 29-NOV-1999;  
99WO-US28214. 30-NOV-1999; 99WO-US28313. 02-DEC-1999;  
99WO-US28564; Assignee: (GETH ) GENENTECH INC; Cross Reference: WPI;  
2001-091968/10. P-PSDB; AAB68600; Patent Format: Claim 50; Fig 17;  
196pp; English.

COMMENT The present invention relates to PRO proteins and coding sequences.  
The present sequence is the coding sequence for one such PRO  
protein. It was found that the PRO genes are amplified in the genome  
of tumour cells. The gene amplification is expected to be associated  
with the overexpression of the gene product and contributes to  
tumourigenesis. Therefore, antagonists of PRO proteins are useful  
for the treatment of benign or malignant tumours, leukaemias,  
lymphoid malignancies and other disorders such as neuronal, glial,  
astrocytal, hypothalamic, glandular, epithelial, inflammatory and  
immunologic disorders.

FEATURES Location/Qualifiers

BASE COUNT	294 a	497 c	506 g	318 t	1 others
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ORIGIN

P\_AAA30056 Human PRO317 nucleotide sequence. 616 bp, cDNA, PAT 09-AUG-2000

ACCESSION P\_AAA30056

KEYWORDS Antibody; PRO187; PRO533; PRO214; PRO240; PRO211; PRO230; PRO261;  
PRO246; PRO317; tumour growth inhibitor; cancer; diagnosis;  
treatment; human; cell growth; proliferation; transforming growth  
factor; ADEPT; antibody dependent enzyme mediated prodrug therapy;  
patent; GENESEQ patentdb.

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 1616)

AUTHORS Goddard,A., Gurney,A.L., Hillan,K.J., Roy,M.A., Wood,W.I.,  
Botstein,D.

TITLE New isolated antibodies which bind to specific polypeptides used for  
diagnosis and treatment of neoplastic cell growth and proliferation

JOURNAL Patent: WO200015666-A2; Filing Date: 08-SEP-1999; 99WO-US20594;  
Publication Date: 23-MAR-2000; Priority: 10-SEP-1998;  
98US-0099803. 10-SEP-1998; 98WO-US18824; Assignee: (GETH )  
GENENTECH INC; Cross Reference: WPI; 2000-271386/23. P-PSDB;  
AAY88575; Patent Format: Example 9; Fig 17; 200pp; English.

COMMENT This sequence represents a human PRO317 nucleotide sequence. PRO317  
shares sequence homology with members of the transforming growth  
factor beta superfamily of proteins. The invention relates to  
isolated antibodies which bind to a polypeptide. The "PRO"  
polypeptides are encoded by genes which are over expressed in the  
genome of tumour cells. Vectors and host cells comprising the  
nucleic acid encoding the antibodies are used in the production of  
the antibodies. The antibodies and nucleic acids encoding them are  
used for diagnosing a tumour in a mammal. The antibodies are used  
for inhibiting the growth of tumour cells and identifying compounds  
that inhibit a biological or immunological activity of and/or  
expression of a PRO187, PRO533, PRO214, PRO240, PRO211, PRO230,  
PRO261, PRO246 or PRO317 polypeptide. The antibody can be used in

antibody dependent enzyme mediated prodrug therapy (ADEPT) by conjugating the antibody to a prodrug-activating enzyme which converts a prodrug to an anti-cancer drug. The antibodies can be fluorescently labelled and monitored by light microscopy, flow cytometry or fluorimetry for diagnosis and prognosis of tumours.

FEATURES                      Location/Qualifiers  
BASE COUNT            294 a      497 c      506 g      318 t            1 others  
ORIGIN

P\_AAX28437   EGF-like homologue EBAF-2 coding sequence. 616 bp,  
DNA, PAT 22-JUN-1999

ACCESSION    P\_AAX28437

KEYWORDS     Antibody; PRO187; PRO533; PRO214; PRO240; PRO211; PRO230; PRO261;  
PRO246; EBAF-2; inhibitor; tumour growth; cancer; EGF-like  
homologue; FGF-8 homologue; patent; GENESEQ patentdb.

SOURCE       Homo sapiens.

ORGANISM      Homo sapiens.

REFERENCE    1 (bases 1 to 1616)

AUTHORS       Botstein,D., Goddard,A., Gurney,A., Hillan,K., Lawrence,D.A.  
Roy,M., Wood,W.I.

TITLE          Antibodies against specific proteins overexpressed in tumours

JOURNAL       Patent: WO9914327-A2; Filing Date: 10-SEP-1998; 98WO-US18824;  
Publication Date: 25-MAR-1999; Priority: 25-NOV-1997;  
97US-0066840. 17-SEP-1997; 97US-0059114. 17-SEP-1997;  
97US-0059117. 18-SEP-1997; 97US-0059263. 15-OCT-1997;  
97US-0062125. 17-OCT-1997; 97US-0062285. 17-OCT-1997;  
97US-0062287. 24-OCT-1997; 97US-0062816. 29-OCT-1997;  
97US-0063704; Assignee: (GETH ) GENENTECH INC; Cross Reference: WPI;  
1999-229532/19. P-PSDB; AAY05287; Patent Format: Example 1; Fig 30;  
130pp; English.

COMMENT       This sequence encodes the EGF-like homologue EBAF-2: The invention  
relates to antibodies (Ab) that bind to any of the polypeptides (I)  
designated PRO187; PRO533; PRO214; PRO240; PRO211; PRO230; PRO261;  
PRO246 or EBAF-2. The Ab, or other agents that inhibit expression  
and/or activity of (I) are used: (i) to inhibit growth of tumours;  
and (ii) as diagnostic/prognostic reagents for detection or  
quantification of (I) in cells or tissues, by standard immunoassays,  
with overexpression being indicative of cancer. For therapeutic use,  
the Ab may be conjugated to a toxin, chemotherapeutic agent or  
radioisotope. Genes expressing (I); many of which are growth factor  
homologues, are overexpressed in some cases of cancer.

FEATURES                      Location/Qualifiers  
BASE COUNT            294 a      497 c      506 g      318 t            1 others  
ORIGIN

P\_AAX52234   Protein PRO317 cDNA clone DNA33461-1199. 616 bp,  
DNA, PAT 25-JUN-1999

ACCESSION    P\_AAX52234

KEYWORDS     Secretd protein; transmembrane protein; human; enterocolitis;  
Zollinger-Ellison syndrome; gastrointestinal ulceration; congenital  
microvillus atrophy; skin disease; cell growth; abnormal  
keratinocyte differentiation; psoriasis; epithelial cancer;  
Parkinson's disease; Alzheimer's disease; ALS; neuropathy;  
fibromodulin; dermal scarring; Usher Syndrome; Atrophia areata;  
anti-thrombotic; wound healing; tissue repair; patent; GENESEQ  
patentdb.

SOURCE       Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 1616)

AUTHORS Chen,J., Goddard,A., Gurney,A.L., Pennica,D., Wood,W.I., Yuan,J.

TITLE New isolated human genes and polypeptides used in, e.g. treatment of gastrointestinal ulceration

JOURNAL Patent: WO9914328-A2; Filing Date: 16-SEP-1998; 98WO-US19330; Publication Date: 25-MAR-1999; Priority: 25-NOV-1997;  
 97US-0066840. 17-SEP-1997; 97US-0059113. 17-SEP-1997;  
 97US-0059115. 17-SEP-1997; 97US-0059117. 17-SEP-1997;  
 97US-0059119. 17-SEP-1997; 97US-0059121. 17-SEP-1997;  
 97US-0059122. 17-SEP-1997; 97US-0059184. 18-SEP-1997;  
 97US-0059263. 18-SEP-1997; 97US-0059266. 15-OCT-1997;  
 97US-0062125. 17-OCT-1997; 97US-0062285. 17-OCT-1997;  
 97US-0062287. 21-OCT-1997; 97US-0063486. 24-OCT-1997;  
 97US-0062814. 24-OCT-1997; 97US-0062816. 24-OCT-1997;  
 97US-0063045. 24-OCT-1997; 97US-0063120. 24-OCT-1997;  
 97US-0063121. 24-OCT-1997; 97US-0063127. 24-OCT-1997;  
 97US-0063128. 27-OCT-1997; 97US-0063329. 27-OCT-1997;  
 97US-0063327. 28-OCT-1997; 97US-0063541. 28-OCT-1997;  
 97US-0063542. 28-OCT-1997; 97US-0063544. 28-OCT-1997;  
 97US-0063549. 28-OCT-1997; 97US-0063550. 28-OCT-1997;  
 97US-0063564. 29-OCT-1997; 97US-0063435. 29-OCT-1997;  
 97US-0063704. 29-OCT-1997; 97US-0063732. 29-OCT-1997;  
 97US-0063738. 29-OCT-1997; 97US-0063734. 29-OCT-1997;  
 97US-0064215. 29-OCT-1997; 97US-0063735. 31-OCT-1997;  
 97US-0063870. 31-OCT-1997; 97US-0064103. 03-NOV-1997;  
 97US-0064248. 07-NOV-1997; 97US-0064809. 12-NOV-1997;  
 97US-0065186. 17-NOV-1997; 97US-0065846. 18-NOV-1997;  
 97US-0065693. 21-NOV-1997; 97US-0066120. 21-NOV-1997;  
 97US-0066364. 24-NOV-1997; 97US-0066772. 24-NOV-1997;  
 97US-0066466. 24-NOV-1997; 97US-0066770. 24-NOV-1997;  
 97US-0066511. 24-NOV-1997; 97US-0066453; Assignee: (GETH ) GENENTECH INC; Cross Reference: WPI; 1999-229533/19. P-PSDB; AAY13363; Patent Format: Claim 2; Fig 41; 320pp; English.

COMMENT AAX52213-74 encode secreted and transmembrane human proteins, and are obtained from cDNA libraries, prepared from fetal lung, fetal kidney, fetal brain, fetal liver and fetal retina. The encoded polypeptides have specific uses based on their homology to known polypeptides, e.g. PRO211 and PRO217 can be used for disorders associated with the preservation and maintenance of gastrointestinal mucosa and the repair of acute and chronic mucosal lesions (e.g. enterocolitis, Zollinger-Ellison syndrome, gastrointestinal ulceration and congenital microvillus atrophy), skin diseases associated with abnormal keratinocyte differentiation (e.g. psoriasis, epithelial cancers such as lung squamous cell carcinoma of the vulva and gliomas), potent effects on cell growth and development, diseases related to growth or survival of nerve cells including Parkinson's disease, Alzheimer's disease, ALS, neuropathies or cancer. PRO265 can be used as for fibromodulin, e.g. for reducing dermal scarring. PRO264 can be used as a target for anti-tumor drugs. PRO533 may be used in the treatment of Usher Syndrome or Atrophia areata; PRO269 can be used as an anti-thrombotic agent; PRO287 polypeptides and portions may have therapeutic applications in wound healing and tissue repair; PRO317 can be used for treating problems of the kidney, uterus, endometrium, blood vessels, or related tissue, e.g. in the heart of

FEATURES	Location/Qualifiers				
BASE COUNT	294 a	497 c	506 g	318 t	1 others
ORIGIN					

ACCESSION P ACA58386

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 1616)

AUTHORS Ashkenazi, A., Botstein, D., Desnoyers, L., Eaton, D.L., Ferrara, N.,  
Filvaroff, E., Fong, S., Gao, W., Gerber, H., Gerritsen, M.E.,  
Goddard, A. Godowski, P.J., Grimaldi, J.C., Gurney, A.L.,  
Hillan, K.J., Kljavin, I.J. Mather, J.P., Pan, J., Paoni, N.F.,  
Roy, M.A., Stewart, T.A., Tumas, D. Williams, P.M., Wood, W.I.

TITLE New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO245 or PRO1868, useful in molecular biology, chromosome and gene mapping, in generating antisense RNA and DNA, and in gene therapy -

JOURNAL Patent: US2002192659-A1; Filing Date: 10-JUL-2001; 2001US-0902853;  
Publication Date: 19-DEC-2002; Priority: 10-SEP-1998;

98WQ-US18824. 14-SEP-1998; 98WO-US19177. 16-SEP-1998;  
98WO-US19330. 17-SEP-1998; 98WO-US19437. 01-DEC-1998;  
98WO-US25108. 08-SEP-1999; 99WO-US20594. 13-SEP-1999;  
99WO-US20944. 15-SEP-1999; 99WO-US21090. 15-SEP-1999;  
99WO-US21547. 05-OCT-1999; 99WO-US23089. 01-DEC-1999;  
99WO-US28301. 02-DEC-1999; 99WO-US28564. 02-DEC-1999;  
99WO-US28565. 16-DEC-1999; 99WO-US30095. 20-DEC-1999;  
99WO-US30911. 20-DEC-1999; 99WO-US30999. 05-JAN-2000;  
2000WO-US00219. 11-FEB-2000; 2000WO-US03565. 22-FEB-2000;  
2000WO-US04414. 28-JUL-2000; 2000WO-US20710. 24-AUG-2000;  
2000WO-US23328. 17-SEP-1997; 97US-059113P. 17-SEP-1997;  
97US-059115P. 17-SEP-1997; 97US-059117P. 18-SEP-1997;  
97US-059266P. 15-OCT-1997; 97US-062125P. 17-OCT-1997;  
97US-062285P. 17-OCT-1997; 97US-062287P. 21-OCT-1997;  
97US-063486P. 24-OCT-1997; 97US-062814P. 24-OCT-1997;  
97US-062816P; Assignee: (GETH ) GENENTECH INC; Cross Reference: WPI;  
2003-361832/34. P-PSDB; ABU71464; Patent Format: Claim 2; Fig 41;  
474pp; English.

COMMENT The present invention relates to the isolation of novel human secreted and transmembrane proteins (PRO polypeptides), and the polynucleotide sequences encoding them. The polynucleotide sequences are useful in molecular biology, as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA, and in gene therapy. The polynucleotide sequences may also be used in preparing PRO polypeptides by recombinant techniques, and in generating either transgenic animals or knock-out animals which, in turn, are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or their antibodies are useful in preparing a medicament for treating a condition responsive to the polypeptide or antibody, such as cancer, Alzheimer's disease or ischaemia, and in various diagnostic assays. The present sequence encodes a human PRO polypeptide of the invention.

FEATURES	Location/Qualifiers
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BASE COUNT        294 a        497 c        506 g        318 t        1 others  
ORIGIN

P\_ACA60093 Human cDNA for secreted/transmembrane protein PRO317. 616 bp,  
cDNA, PAT 12-JUN-2003

ACCESSION P\_ACA60093

KEYWORDS Human; ss; gene; secreted protein; transmembrane protein; PRO; gene  
therapy; chromosome identification; chromosome marker; patent;  
GENESEQ patentdb.

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 1616)

AUTHORS Ashkenazi,A., Botstein,D., Desnoyers,L., Eaton,D.L., Ferrara,N.  
Filvaroff,E., Fong,S., Gao,W., Gerber,H., Gerritsen,M.E.,  
Goddard,A. Godowski,P.J., Grimaldi,J.C., Gurney,A.L.,  
Hillan,K.J., Kljavin,I.J. Mather,J.P., Pan,J., Paoni,N.F.,  
Roy,M.A., Stewart,T.A., Tumas,D. Williams,P.M., Wood,W.I.

TITLE New transmembrane polypeptides and nucleic acids encoding the  
polypeptides, useful in gene therapy, in chromosome identification,  
as chromosome markers, in generating probes and in tissue typing -

JOURNAL Patent: US2003003530-A1; Filing Date: 11-JUL-2001; 2001US-0904011;  
Publication Date: 02-JAN-2003; Priority: 10-SEP-1998;

98WO-US18824. 14-SEP-1998; 98WO-US19177. 16-SEP-1998;  
98WO-US19330. 17-SEP-1998; 98WO-US19437. 01-DEC-1998;  
98WO-US25108. 08-SEP-1999; 99WO-US20594. 13-SEP-1999;  
99WO-US20944. 15-SEP-1999; 99WO-US21090. 15-SEP-1999;  
99WO-US21547. 05-OCT-1999; 99WO-US23089. 29-NOV-1999;  
99WO-US28214. 30-NOV-1999; 99WO-US28313. 01-DEC-1999;  
99WO-US28301. 02-DEC-1999; 99WO-US28564. 02-DEC-1999;  
99WO-US28565. 16-DEC-1999; 99WO-US30095. 20-DEC-1999;  
99WO-US30911. 20-DEC-1999; 99WO-US30999. 05-JAN-2000;  
2000WO-US00219. 11-FEB-2000; 2000WO-US03565. 22-FEB-2000;  
2000WO-US04414. 24-FEB-2000; 2000WO-US05004. 02-MAR-2000;  
2000WO-US05841. 20-MAR-2000; 2000WO-US07377. 30-MAR-2000;  
2000WO-US08439. 22-MAY-2000; 2000WO-US14042. 02-JUN-2000;  
2000WO-US15264. 28-JUL-2000; 2000WO-US20710. 24-AUG-2000;  
2000WO-US23328. 17-SEP-1997; 97US-059113P. 17-SEP-1997;  
97US-059115P. 17-SEP-1997; 97US-059117P. 17-SEP-1997;  
97US-059119P. 17-SEP-1997; 97US-059121P. 17-SEP-1997;  
97US-059122P. 17-SEP-1997; 97US-059184P. 18-SEP-1997;  
97US-059263P. 18-SEP-1997; 97US-059266P. 15-OCT-1997;  
97US-062125P. 17-OCT-1997; 97US-062285P. 17-OCT-1997;  
97US-062287P. 21-OCT-1997; 97US-063486P. 24-OCT-1997;  
97US-062814P. 24-OCT-1997; 97US-062816P. 24-OCT-1997;  
97US-063045P. 24-OCT-1997; 97US-063120P. 24-OCT-1997;  
97US-063121P. 24-OCT-1997; 97US-063127P. 24-OCT-1997;  
97US-063128P. 27-OCT-1997; 97US-063327P. 27-OCT-1997;  
97US-063329P. 28-OCT-1997; 97US-063541P. 28-OCT-1997;  
97US-063542P. 28-OCT-1997; 97US-063544P. 28-OCT-1997;  
97US-063549P. 28-OCT-1997; 97US-063550P. 28-OCT-1997;  
97US-063564P. 29-OCT-1997; 97US-063435P. 29-OCT-1997;  
97US-063704P. 29-OCT-1997; 97US-063732P. 29-OCT-1997;  
97US-063734P. 29-OCT-1997; 97US-063735P. 29-OCT-1997;  
97US-063738P. 29-OCT-1997; 97US-064215P. 31-OCT-1997;  
97US-063870P. 31-OCT-1997; 97US-064103P. 03-NOV-1997;  
97US-064248P. 07-NOV-1997; 97US-064809P. 12-NOV-1997;  
97US-065186P. 17-NOV-1997; 97US-065846P. 18-NOV-1997;

97US-065693P. 21-NOV-1997; 97US-066120P. 21-NOV-1997;  
 97US-066364P. 24-NOV-1997; 97US-066453P. 24-NOV-1997;  
 97US-066466P. 24-NOV-1997; 97US-066511P. 24-NOV-1997;  
 97US-066770P. 24-NOV-1997; 97US-066772P. 18-SEP-2000;  
 2000US-0665350; Assignee: (GETH ) GENENTECH INC; Cross Reference:  
 WPI; 2003-329602/31. P-PSDB; ABU71910; Patent Format: Claim 2; Fig  
 41; 484pp; English.

COMMENT The invention relates to an isolated nucleic acid with at least 80% nucleic acid sequence identity to a nucleotide sequence encoding one of 61 secreted/transmembrane polypeptides, or PRO polypeptides or encoding a PRO protein extracellular domain. Also included are a vector comprising the PRO nucleic acid, a host cell comprising the vector, producing a PRO polypeptide (by culturing the host cell for the expression of the PRO polypeptide, and recovering the PRO polypeptide from the cell culture), an isolated PRO polypeptide (having at least 80% sequence identity to: (a) an amino acid sequence selected from the 61 PRO proteins; (b) an amino acid sequence encoded by a nucleic acid molecule deposited with an ATCC number (detailed in the specification); or (c) an extracellular domain of a PRO polypeptide or to a PRO polypeptide lacking its associated signal peptide), a chimaeric molecule comprising a PRO polypeptide of fused to a heterologous amino acid sequence, an anti-PRO antibody, detecting a PRO245 or PRO1868 in a sample suspected of containing the polypeptide, linking a bioactive molecule to a cell expressing a PRO245 or PRO1868 and modulating at least one biological activity of a cell expressing a PRO245 or PRO1868. Nucleic acids which encode PRO can be used to generate either transgenic animals or knock-out animals which may be used in the development and screening of therapeutically useful reagents. The nucleic acids may also be used in gene therapy, in chromosome identification, as chromosome markers, or in generating probes. The PRO polypeptides are useful as molecular markers for protein electrophoresis, and the isolated nucleic acids may be used for recombinantly expressing those markers. The PRO polypeptides and nucleic acids may also be used in tissue typing. Anti-PRO antibodies are useful in diagnostic assays for PRO, and in affinity purification of PRO from recombinant cell culture or natural sources. The present sequence encodes a PRO protein.

FEATURES Location/Qualifiers  
 BASE COUNT 294 a 497 c 506 g 318 t 1 others  
 ORIGIN

P\_ACA05431 cDNA encoding human secreted protein PRO317. 616 bp,  
 cDNA, PAT 29-MAY-2003

ACCESSION P\_ACA05431

KEYWORDS Human; gene therapy; mucosal lesion; ulcer; enterocolitis; skin disease; psoriasis; cancer; lung cancer; colon cancer; nerve cell disease; Alzheimer's disease; Parkinson's disease; Usher syndrome; angiogenesis; atrophia areata; inflammatory disease; asthma; rheumatoid arthritis; ischaemia; ss; gene; patent; GENESEQ patentdb.

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 1616)

AUTHORS Ashkenazi,A., Botstein,D., Desnoyers,L., Eaton,D.L., Ferrara,N. Filvaroff,E., Fong,S., Gao,W., Gerber,H., Gerritsen,M.E., Goddard,A. Godowski,P.J., Grimaldi,J.C., Gurney,A.L., Hillan,K.J., Kljavin,I.J. Mather,J.P., Pan,J., Paoni,N.F.,

Roy, M.A., Stewart, T.A., Tumas, D. Williams, P.M., Wood, W.I.  
TITLE Sixty one isolated nucleic acids encoding a PRO polypeptide, e.g.  
PRO245 or PRO1868, useful in chromosome and gene mapping, in  
generating antisense RNA and DNA, and in treating cancer and  
Alzheimer's disease -

JOURNAL Patent: US2003023054-A1; Filing Date: 16-JUL-2001; 2001US-0906742;  
Publication Date: 30-JAN-2003; Priority: 10-SEP-1998;  
98WO-US18824. 14-SEP-1998; 98WO-US19177. 16-SEP-1998;  
98WO-US19330. 17-SEP-1998; 98WO-US19437. 01-DEC-1998;  
98WO-US25108. 08-SEP-1999; 99WO-US20594. 13-SEP-1999;  
99WO-US20944. 15-SEP-1999; 99WO-US21090. 15-SEP-1999;  
99WO-US21547. 05-OCT-1999; 99WO-US23089. 29-NOV-1999;  
99WO-US28214. 30-NOV-1999; 99WO-US28313. 01-DEC-1999;  
99WO-US28301. 02-DEC-1999; 99WO-US28564. 02-DEC-1999;  
99WO-US28565. 16-DEC-1999; 99WO-US30095. 20-DEC-1999;  
99WO-US30911. 20-DEC-1999; 99WO-US30999. 05-JAN-2000;  
2000WO-US00219. 11-FEB-2000; 2000WO-US03565. 22-FEB-2000;  
2000WO-US04414. 24-FEB-2000; 2000WO-US05004. 02-MAR-2000;  
2000WO-US05841. 20-MAR-2000; 2000WO-US07377. 30-MAR-2000;  
2000WO-US08439. 22-MAY-2000; 2000WO-US14042. 02-JUN-2000;  
2000WO-US15264. 28-JUL-2000; 2000WO-US20710. 24-AUG-2000;  
2000WO-US23328. 17-SEP-1997; 97US-059113P. 17-SEP-1997;  
97US-059115P. 17-SEP-1997; 97US-059117P. 17-SEP-1997;  
97US-059119P. 17-SEP-1997; 97US-059121P. 17-SEP-1997;  
97US-059122P. 17-SEP-1997; 97US-059184P. 18-SEP-1997;  
97US-059263P. 18-SEP-1997; 97US-059266P. 15-OCT-1997;  
97US-062125P. 17-OCT-1997; 97US-062285P. 17-OCT-1997;  
97US-062287P. 21-OCT-1997; 97US-063486P. 24-OCT-1997;  
97US-062814P. 24-OCT-1997; 97US-062816P. 24-OCT-1997;  
97US-063045P. 24-OCT-1997; 97US-063120P. 24-OCT-1997;  
97US-063121P. 24-OCT-1997; 97US-063127P. 24-OCT-1997;  
97US-063128P. 27-OCT-1997; 97US-063327P. 27-OCT-1997;  
97US-063329P. 28-OCT-1997; 97US-063541P. 28-OCT-1997;  
97US-063542P. 28-OCT-1997; 97US-063544P. 28-OCT-1997;  
97US-063549P. 28-OCT-1997; 97US-063550P. 28-OCT-1997;  
97US-063564P. 29-OCT-1997; 97US-063435P. 29-OCT-1997;  
97US-063704P. 29-OCT-1997; 97US-063732P. 29-OCT-1997;  
97US-063734P. 29-OCT-1997; 97US-063735P. 29-OCT-1997;  
97US-063738P. 29-OCT-1997; 97US-064215P. 31-OCT-1997;  
97US-063870P. 31-OCT-1997; 97US-064103P. 03-NOV-1997;  
97US-064248P. 07-NOV-1997; 97US-064809P. 12-NOV-1997;  
97US-065186P. 17-NOV-1997; 97US-065846P. 18-NOV-1997;  
97US-065693P. 21-NOV-1997; 97US-066120P. 21-NOV-1997;  
97US-066364P. 24-NOV-1997; 97US-066453P. 24-NOV-1997;  
97US-066466P. 24-NOV-1997; 97US-066511P. 24-NOV-1997;  
97US-066770P. 24-NOV-1997; 97US-066772P. 25-NOV-1997;  
97US-066840P. 12-DEC-1997; 97US-069425P. 04-JUN-1998;  
98US-088026P. 10-SEP-1998; 98US-099803P. 14-SEP-1998;  
98US-100262P. 17-SEP-1998; 98US-100858P. 13-OCT-1998;  
98US-104080P. 20-NOV-1998; 98US-109304P. 22-DEC-1998;  
98US-113296P. 07-JUL-1999; 99US-143048P. 26-JUL-1999;  
99US-145698P. 28-JUL-1999; 99US-146222P. 18-SEP-2000;  
2000US-0665350; Assignee: (GETH ) GENENTECH INC; Cross Reference:  
WPI; 2003-331485/31. P-PSDB; ABU67364; Patent Format: Example 18;  
Fig 41; 481pp; English.

COMMENT The invention relates to sixty one nucleic acids encoding PRO  
polypeptides (secreted and transmembrane). The polynucleotide is

useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA, and in gene therapy. The polynucleotide may also be used in preparing PRO polypeptides by recombinant techniques, and in generating either transgenic animals or knock-out animals which, in turn, are useful in the development and screening of therapeutically useful reagents. The PRO polypeptide or the antibody is used in preparing a medicament for treating a condition responsive to the polypeptide or antibody, such as mucosal lesions e.g. ulcers and enterocolitis, skin disease e.g. psoriasis, cancer e.g. lung cancer and colon cancer, nerve cell disease e.g. Alzheimer's disease and Parkinson's disease, Usher syndrome, atrophica areata, angiogenesis, inflammatory disease e.g. asthma and rheumatoid arthritis, ischaemia, and in various diagnostic assays. The present sequence represents an cDNA which encodes a PRO polypeptide.

FEATURES                      Location/Qualifiers  
 BASE COUNT                294 a        497 c        506 g        318 t            1 others  
 ORIGIN

P\_ABX96110 Human secreted/transmembrane protein cDNA, #22. 616 bp,  
 cDNA, PAT 13-MAY-2003

ACCESSION P\_ABX96110

KEYWORDS Human; gene; ss; PRO; secreted; transmembrane; pharmaceutical;  
 diagnostic; biosensor; bioreactor; therapeutic; hyperplasia;  
 endometriosis; cancer; tumour; ischaemia; coronary arterial disease;  
 polycystic kidney disease; renal failure; inflammatory response;  
 asthma; rheumatoid arthritis; psoriasis; multiple sclerosis; gene  
 therapy; cytostatic; gynecological; cardiant; nephrotropic;  
 hepatotropic; antiinflammatory; patent; GENESEQ patentdb.

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1. (bases 1 to 1616)

AUTHORS Ashkenazi,A., Botstein,D., Desnoyers,L., Eaton,D.L., Ferrara,N.  
 Filvaroff,E., Fong,S., Gao,W., Gerber,H., Gerritsen,M.E.,  
 Goddard,A. Godowski,P.J., Grimaldi,J.C., Gurney,A.L.,  
 Hillan,K.J., Kljavin,I.J. Mather,J.P., Pan,J., Paoni,N.F.,  
 Roy,M.A., Stewart,T.A., Tumas,D. Williams,P.M., Wood,W.I.

TITLE New secreted and transmembrane PRO polypeptides (e.g. PRO533 or  
 PRO245) and genes encoding them, useful for detecting or treating  
 e.g. hyperplasia, endometriosis, cancers, ischemia, coronary  
 arterial disease or inflammations -

JOURNAL Patent: US2002160374-A1; Filing Date: 12-JUL-2001; 2001US-0905291;  
 Publication Date: 31-OCT-2002; Priority: 10-SEP-1998;  
 98WO-US18824. 14-SEP-1998; 98WO-US19177. 16-SEP-1998;  
 98WO-US19330. 17-SEP-1998; 98WO-US19437. 01-DEC-1998;  
 98WO-US25108. 08-SEP-1999; 99WO-US20594. 13-SEP-1999;  
 99WO-US20944. 15-SEP-1999; 99WO-US21090. 15-SEP-1999;  
 99WO-US21547. 05-OCT-1999; 99WO-US23089. 29-NOV-1999;  
 99WO-US28214. 30-NOV-1999; 99WO-US28313. 01-DEC-1999;  
 99WO-US28301. 02-DEC-1999; 99WO-US28564. 02-DEC-1999;  
 99WO-US28565. 16-DEC-1999; 99WO-US30095. 20-DEC-1999;  
 99WO-US30911. 20-DEC-1999; 99WO-US30999. 05-JAN-2000;  
 2000WO-US00219. 11-FEB-2000; 2000WO-US03565. 22-FEB-2000;  
 2000WO-US04414. 24-FEB-2000; 2000WO-US05004. 02-MAR-2000;  
 2000WO-US05841. 20-MAR-2000; 2000WO-US07377. 30-MAR-2000;  
 2000WO-US08439. 22-MAY-2000; 2000WO-US14042. 02-JUN-2000;  
 2000WO-US15264. 28-JUL-2000; 2000WO-US20710. 24-AUG-2000;



2000WO-US23328. 17-SEP-1997; 97US-059113P. 17-SEP-1997;  
 97US-059115P. 17-SEP-1997; 97US-059117P. 17-SEP-1997;  
 97US-059119P. 17-SEP-1997; 97US-059121P. 17-SEP-1997;  
 97US-059122P. 17-SEP-1997; 97US-059184P. 18-SEP-1997;  
 97US-059263P. 18-SEP-1997; 97US-059266P. 15-OCT-1997;  
 97US-062125P. 17-OCT-1997; 97US-062285P. 17-OCT-1997;  
 97US-062287P. 21-OCT-1997; 97US-063486P. 24-OCT-1997;  
 97US-062814P. 24-OCT-1997; 97US-062816P. 24-OCT-1997;  
 97US-063045P. 24-OCT-1997; 97US-063120P. 24-OCT-1997;  
 97US-063121P. 24-OCT-1997; 97US-063127P. 24-OCT-1997;  
 97US-063128P. 27-OCT-1997; 97US-063327P. 27-OCT-1997;  
 97US-063329P. 28-OCT-1997; 97US-063541P. 28-OCT-1997;  
 97US-063542P. 28-OCT-1997; 97US-063544P. 28-OCT-1997;  
 97US-063549P. 28-OCT-1997; 97US-063550P. 28-OCT-1997;  
 97US-063564P. 29-OCT-1997; 97US-063435P. 29-OCT-1997;  
 97US-063704P. 29-OCT-1997; 97US-063732P. 29-OCT-1997;  
 97US-063734P. 29-OCT-1997; 97US-063735P. 29-OCT-1997;  
 97US-063738P. 29-OCT-1997; 97US-064215P. 31-OCT-1997;  
 97US-063870P. 31-OCT-1997; 97US-064103P. 03-NOV-1997;  
 97US-064248P. 07-NOV-1997; 97US-064809P. 12-NOV-1997;  
 97US-065186P. 17-NOV-1997; 97US-065846P. 18-NOV-1997;  
 97US-065693P. 21-NOV-1997; 97US-066120P. 21-NOV-1997;  
 97US-066364P. 24-NOV-1997; 97US-066453P. 24-NOV-1997;  
 97US-066466P. 24-NOV-1997; 97US-066511P. 24-NOV-1997;  
 97US-066770P. 24-NOV-1997; 97US-066772P. 18-SEP-2000;  
 2000US-0665350; Assignee: (GETH ) GENENTECH INC; Cross Reference:  
 WPI; 2003-288105/28. P-PSDB; ABU64518; Patent Format: Claim 2; Fig  
 41; 477pp; English.

COMMENT

The invention discloses isolated PRO secreted/transmembrane polypeptides and the nucleic acid encoding them. The polypeptides can be used to raise antibodies that specifically bind to the PRO polypeptide, for linking a bioactive molecule to a cell expressing a PRO protein and for modulating at least one biological activity of a cell. The PRO polypeptides or polynucleotides are also useful as pharmaceuticals, diagnostics, biosensors or bioreactors, for detecting or treating e.g. hyperplasia, endometriosis, cancers (e.g. those involving solid tumours), ischaemia, coronary arterial disease, polycystic kidney disease, chronic or acute renal failure, or inflammatory responses (e.g. asthma, rheumatoid arthritis, psoriasis or multiple sclerosis) in mammals. The PRO genes may also be used in gene therapy, particularly for replacing a defective gene. The sequences presented in ABX96017-ABX96378 are the genes encoding, the primers amplifying and the probes detecting the PRO polynucleotides of the invention.

FEATURES

Location/Qualifiers

BASE COUNT 294 a 497 c 506 g 318 t 1 others  
 ORIGIN

P\_ACA58989 Human PRO polynucleotide #20. 616 bp, cDNA, PAT 16-JUN-2003

ACCESSION P\_ACA58989

KEYWORDS Human; PRO; gene; ss; secreted polypeptide; transmembrane polypeptide; pathological disorder; cardiac insufficiency disorder; protein secretion; pancreas; diabetes; gastrointestinal mucosa; mucosal lesion; psoriasis; skin disease; keratinocyte differentiation; epithelial cancer; tumour; lung squamous cell carcinoma; epidermoid carcinoma; vulva; glioma; cytostatic; cardiant; endocrine; antidiabetic; gastrointestinal; antiulcer;

dermatological; vulnerary; patent; GENESEQ patentdb.

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 1616)

AUTHORS Ashkenazi,A., Botstein,D., Desnoyers,L., Eaton,D.L., Ferrara,N.  
 Filvaroff,E., Fong,S., Gao,W., Gerber,H., Gerritsen,M.E.,  
 Goddard,A. Godowski,P.J., Grimaldi,J.C., Gurney,A.L.,  
 Hillan,K.J., Kljavin,I.J. Mather,J.P., Pan,J., Paoni,N.F.,  
 Roy,M.A., Stewart,T.A., Tumas,D. Williams,P.M., Wood,W.I.

TITLE Isolated nucleic acid useful for e.g., treating pathological  
 disorders encodes a secreted or transmembrane protein -

JOURNAL Patent: US2002146709-A1; Filing Date: 18-JUL-2001; 2001US-0909088;  
 Publication Date: 10-OCT-2002; Priority: 10-SEP-1998;  
 98WO-US18824. 14-SEP-1998; 98WO-US19177. 16-SEP-1998;  
 98WO-US19330. 17-SEP-1998; 98WO-US19437. 01-DEC-1998;  
 98WO-US25108. 08-SEP-1999; 99WO-US20594. 13-SEP-1999;  
 99WO-US20944. 15-SEP-1999; 99WO-US21090. 15-SEP-1999;  
 99WO-US21547. 05-OCT-1999; 99WO-US23089. 29-NOV-1999;  
 99WO-US28214. 30-NOV-1999; 99WO-US28313. 01-DEC-1999;  
 99WO-US28301. 02-DEC-1999; 99WO-US28564. 02-DEC-1999;  
 99WO-US28565. 16-DEC-1999; 99WO-US30095. 20-DEC-1999;  
 99WO-US30911. 20-DEC-1999; 99WO-US30999. 05-JAN-2000;  
 2000WO-US00219. 11-FEB-2000; 2000WO-US03565. 22-FEB-2000;  
 2000WO-US04414. 24-FEB-2000; 2000WO-US05004. 02-MAR-2000;  
 2000WO-US05841. 20-MAR-2000; 2000WO-US07377. 30-MAR-2000;  
 2000WO-US08439. 22-MAY-2000; 2000WO-US14042. 02-JUN-2000;  
 2000WO-US15264. 28-JUL-2000; 2000WO-US20710. 24-AUG-2000;  
 2000WO-US23328. 17-SEP-1997; 97US-059113P. 17-SEP-1997;  
 97US-059115P. 17-SEP-1997; 97US-059117P. 17-SEP-1997;  
 97US-059119P. 17-SEP-1997; 97US-059121P. 17-SEP-1997;  
 97US-059122P. 17-SEP-1997; 97US-059184P. 18-SEP-1997;  
 97US-059263P. 18-SEP-1997; 97US-059266P. 15-OCT-1997;  
 97US-062125P. 17-OCT-1997; 97US-062285P. 17-OCT-1997;  
 97US-062287P. 21-OCT-1997; 97US-063486P. 24-OCT-1997;  
 97US-062814P. 24-OCT-1997; 97US-062816P. 24-OCT-1997;  
 97US-063045P. 24-OCT-1997; 97US-063120P. 24-OCT-1997;  
 97US-063121P. 24-OCT-1997; 97US-063127P. 24-OCT-1997;  
 97US-063128P. 27-OCT-1997; 97US-063327P. 27-OCT-1997;  
 97US-063329P. 28-OCT-1997; 97US-063541P. 28-OCT-1997;  
 97US-063542P. 28-OCT-1997; 97US-063544P. 28-OCT-1997;  
 97US-063549P. 28-OCT-1997; 97US-063550P. 28-OCT-1997;  
 97US-063564P. 29-OCT-1997; 97US-063435P. 29-OCT-1997;  
 97US-063704P. 29-OCT-1997; 97US-063732P. 29-OCT-1997;  
 97US-063734P. 29-OCT-1997; 97US-063735P. 29-OCT-1997;  
 97US-063738P. 29-OCT-1997; 97US-064215P. 31-OCT-1997;  
 97US-063870P. 31-OCT-1997; 97US-064103P. 03-NOV-1997;  
 97US-064248P. 07-NOV-1997; 97US-064809P. 12-NOV-1997;  
 97US-065186P. 17-NOV-1997; 97US-065846P. 18-NOV-1997;  
 97US-065693P. 21-NOV-1997; 97US-066120P. 21-NOV-1997;  
 97US-066364P. 24-NOV-1997; 97US-066453P. 24-NOV-1997;  
 97US-066466P. 24-NOV-1997; 97US-066511P. 24-NOV-1997;  
 97US-066770P. 24-NOV-1997; 97US-066772P. 18-SEP-2000;  
 2000US-0665350; Assignee: (GETH ) GENENTECH INC; Cross Reference:  
 WPI; 2003-328338/31. P-PSDB; ABU71609; Patent Format: Claim 2; Fig  
 41; 473pp; English.

COMMENT The invention relates to human PRO polypeptides (secreted or  
 transmembrane polypeptides) and the polynucleotides encoding them.

The PRO polypeptides and polynucleotides can be used in treating pathological disorders and tumours, in therapeutic treatment of cardiac insufficiency disorders and in therapeutic treatment of disorders involving protein secretion by the pancreas, including diabetes. They can also be used in treating disorders associated with the preservation and maintenance of gastrointestinal mucosa and the repair of acute and chronic mucosal lesions, and skin diseases associated with abnormal keratinocyte differentiation (e.g., psoriasis, epithelial cancers such as lung squamous cell carcinoma, epidermoid carcinoma of the vulva and gliomas). The sequences can be used as molecular markers for protein electrophoresis purposes and can be utilised in protein-protein binding assays, biochemical screening assays, immunoassays and cell-based assays. This sequence represents a human PRO polynucleotide of the invention.

FEATURES                      Location/Qualifiers  
 BASE COUNT                294 a       497 c       506 g       318 t           1 others  
 ORIGIN

P\_ACD19736 Human secreted / transmembrane polypeptide PRO317 cDNA. 616 bp, cDNA, PAT 22-AUG-2003

ACCESSION P\_ACD19736

KEYWORDS Human; ss; gene; gene therapy; apoptosis; bleeding; tumour; ALS; gynaecological disease; hysterectomy; angiogenesis; skin disease; cancer; coronary ischaemic condition; gastrointestinal mucosa disorder; asthma; mucosal lesion repair; keratinocyte differentiation; psoriasis; Parkinson's disease; Alzheimer's disease; amyotrophic lateral sclerosis; neuropathy; blood coagulation cascade disorder; thrombosis; haemorrhage; neurodegenerative disease; endometrial bleeding; wound healing; tissue repair; rheumatoid arthritis; multiple sclerosis; tissue typing; patent; GENESEQ patentdb.

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 1616)

AUTHORS Ashkenazi,A., Botstein,D., Desnoyers,L., Eaton,D.L., Ferrara,N. Filvaroff,E., Fong,S., Gao,W., Gerber,H., Gerritsen,M.E., Goddard,A. Godowski,P.J., Grimaldi,J.C., Gurney,A.L., Hillan,K.J., Kljavin,I.J. Mather,J.P., Pan,J., Paoni,N.F., Roy,M.A., Stewart,T.A., Tumas,D. Williams,P.M., Wood,W.I.

TITLE Novel secreted and transmembrane polypeptides and polynucleotides encoding them useful for treating abnormal bleeding involved in gynecological diseases, skin diseases and neurodegenerative diseases

JOURNAL Patent: US2003027143-A1; Filing Date: 16-JUL-2001; 2001US-0906838; Publication Date: 06-FEB-2003; Priority: 10-SEP-1998;  
 98WO-US18824. 14-SEP-1998; 98WO-US19177. 16-SEP-1998;  
 98WO-US19330. 17-SEP-1998; 98WO-US19437. 01-DEC-1998;  
 98WO-US25108. 08-SEP-1999; 99WO-US20594. 13-SEP-1999;  
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 99WO-US21547. 05-OCT-1999; 99WO-US23089. 29-NOV-1999;  
 99WO-US28214. 30-NOV-1999; 99WO-US28313. 01-DEC-1999;  
 99WO-US28301. 02-DEC-1999; 99WO-US28564. 02-DEC-1999;  
 99WO-US28565. 16-DEC-1999; 99WO-US30095. 20-DEC-1999;  
 99WO-US30911. 20-DEC-1999; 99WO-US30999. 05-JAN-2000;  
 2000WO-US00219. 11-FEB-2000; 2000WO-US03565. 22-FEB-2000;  
 2000WO-US04414. 24-FEB-2000; 2000WO-US05004. 02-MAR-2000;  
 2000WO-US05841. 20-MAR-2000; 2000WO-US07377. 30-MAR-2000;

2000WO-US08439. 22-MAY-2000; 2000WO-US14042. 02-JUN-2000;  
 2000WO-US15264. 28-JUL-2000; 2000WO-US20710. 24-AUG-2000;  
 2000WO-US23328. 17-SEP-1997; 97US-059113P. 17-SEP-1997;  
 97US-059115P. 17-SEP-1997; 97US-059117P. 17-SEP-1997;  
 97US-059119P. 17-SEP-1997; 97US-059121P. 17-SEP-1997;  
 97US-059122P. 17-SEP-1997; 97US-059184P. 18-SEP-1997;  
 97US-059263P. 18-SEP-1997; 97US-059266P. 15-OCT-1997;  
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 97US-063121P. 24-OCT-1997; 97US-063127P. 24-OCT-1997;  
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 97US-063329P. 28-OCT-1997; 97US-063541P. 28-OCT-1997;  
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 97US-063704P. 29-OCT-1997; 97US-063732P. 29-OCT-1997;  
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 97US-063870P. 31-OCT-1997; 97US-064103P. 03-NOV-1997;  
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 97US-065186P. 17-NOV-1997; 97US-065846P. 18-NOV-1997;  
 97US-065693P. 21-NOV-1997; 97US-066120P. 21-NOV-1997;  
 97US-066364P. 24-NOV-1997; 97US-066453P. 24-NOV-1997;  
 97US-066466P. 24-NOV-1997; 97US-066511P. 24-NOV-1997;  
 97US-066770P. 24-NOV-1997; 97US-066772P. 25-NOV-1997;  
 97US-066840P. 12-DEC-1997; 97US-069425P. 04-JUN-1998;  
 98US-088026P. 10-SEP-1998; 98US-099803P. 14-SEP-1998;  
 98US-100262P. 17-SEP-1998; 98US-100858P. 13-OCT-1998;  
 98US-104080P. 20-NOV-1998; 98US-109304P. 22-DEC-1998;  
 98US-113296P. 07-JUL-1999; 99US-143048P. 26-JUL-1999;  
 99US-145698P. 28-JUL-1999; 99US-146222P. 18-SEP-2000;  
 2000US-0665350; Assignee: (GETH ) GENENTECH INC; Cross Reference:  
 WPI; 2003-417249/39. P-PSDB; ABO14823; Patent Format: Claim 2; Fig  
 41; 467pp; English.

COMMENT

The invention relates to an isolated secreted and transmembrane PRO polypeptide. The PRO polypeptides are useful for modulating biological activity of a cell; in diagnosing or treating abnormal bleeding involved in gynaecological diseases e.g. to avoid or lessen the need for hysterectomy, for treating angiogenesis, tumour, coronary ischaemic condition, disorders associated with the preservation and maintenance of gastrointestinal mucosa and the repair of acute and chronic mucosal lesions, skin diseases associated with abnormal keratinocyte differentiation (e.g. psoriasis), Parkinson's disease, Alzheimer's disease, amyotrophic lateral sclerosis (ALS), neuropathies, disease related to uncontrolled cell growth (e.g. cancer), blood coagulation cascade disorders, neurodegenerative disease, thrombosis, haemorrhage, endometrial bleeding, wound healing, tissue repair, asthma, rheumatoid arthritis, multiple sclerosis. Nucleic acid encoding PRO polypeptides are useful in molecular biology including uses as hybridisation probes and in the generation of antisense RNA and DNA, for preparing PRO polypeptides, for generating transgenic animals or knockout animals. The PRO polypeptides and their nucleic acids are useful for tissue typing. PRO antibodies are useful for immunohistochemical staining and/or assay of sample fluids. Anti-PRO

antibodies are useful in diagnostic assays for PRO e.g. detecting its expression in specific cells, tissues or serum and for affinity purification of PRO from recombinant cell culture or natural sources. The present sequence represents cDNA encoding a human secreted and transmembrane PRO polypeptide.

FEATURES                      Location/Qualifiers  
BASE COUNT        294 a        497 c        506 g        318 t        1 others  
ORIGIN

P\_ACA54901 Novel human secreted and transmembrane protein PRO317 cDNA. 616 bp, cDNA, PAT 05-JUN-2003

ACCESSION        P\_ACA54901

KEYWORDS        Human; secreted and transmembrane protein; gene therapy; psoriasis; enterocolitis; gastrointestinal ulceration; skin disease; keratinocyte differentiation; epithelial cancer; Alzheimer's disease; squamous cell carcinoma; Parkinson's disease; inflammatory disease; amyotrophic lateral sclerosis; rheumatoid arthritis; asthma; multiple sclerosis; organ failure; atherosclerosis; cardiac injury; infertility; birth defect; premature aging; AIDS; cancer; diabetic complication; wound repair; tissue re-growth; gene; patent; GENESEQ patentdb.

SOURCE            Homo sapiens.

ORGANISM        Homo sapiens.

REFERENCE        1 (bases 1 to 1616)

AUTHORS        Ashkenazi,A., Botstein,D., Desnoyers,L., Eaton,D.L., Ferrara,N. Filvaroff,E., Fong,S., Gao,W., Gerber,H., Gerritsen,M.E., Goddard,A. Godowski,P.J., Grimaldi,J.C., Gurney,A.L., Hillan,K.J., Kljavin,I.J. Mather,J.P., Pan,J., Paoni,N.F., Roy,M.A., Stewart,T.A., Tumas,D. Williams,P.M., Wood,W.I.

TITLE            New PRO polypeptides and nucleic acid molecules, useful in diagnosing or treating inflammatory diseases, organ failure, atherosclerosis, cardiac injury, infertility, cancer, AIDS, Alzheimer's disease or Parkinson's disease -

JOURNAL        Patent: US2003017463-A1; Filing Date: 11-JUL-2001; 2001US-0903640;

Publication Date: 23-JAN-2003; Priority: 10-SEP-1998;

98WO-US18824. 14-SEP-1998; 98WO-US19177. 16-SEP-1998;  
98WO-US19330. 17-SEP-1998; 98WO-US19437. 01-DEC-1998;  
98WO-US25108. 08-SEP-1999; 99WO-US20594. 13-SEP-1999;  
99WO-US20944. 15-SEP-1999; 99WO-US21090. 15-SEP-1999;  
99WO-US21547. 05-OCT-1999; 99WO-US23089. 29-NOV-1999;  
99WO-US28214. 30-NOV-1999; 99WO-US28313. 01-DEC-1999;  
99WO-US28301. 02-DEC-1999; 99WO-US28564. 02-DEC-1999;  
99WO-US28565. 16-DEC-1999; 99WO-US30095. 20-DEC-1999;  
99WO-US30911. 20-DEC-1999; 99WO-US30999. 05-JAN-2000;  
2000WO-US00219. 11-FEB-2000; 2000WO-US03565. 22-FEB-2000;  
2000WO-US04414. 24-FEB-2000; 2000WO-US05004. 02-MAR-2000;  
2000WO-US05841. 20-MAR-2000; 2000WO-US07377. 30-MAR-2000;  
2000WO-US08439. 22-MAY-2000; 2000WO-US14042. 02-JUN-2000;  
2000WO-US15264. 28-JUL-2000; 2000WO-US20710. 24-AUG-2000;  
2000WO-US23328. 17-SEP-1997; 97US-059113P. 17-SEP-1997;  
97US-059115P. 17-SEP-1997; 97US-059117P. 17-SEP-1997;  
97US-059119P. 17-SEP-1997; 97US-059121P. 17-SEP-1997;  
97US-059122P. 17-SEP-1997; 97US-059184P. 18-SEP-1997;  
97US-059263P. 18-SEP-1997; 97US-059266P. 15-OCT-1997;  
97US-062125P. 17-OCT-1997; 97US-062285P. 17-OCT-1997;  
97US-062287P. 21-OCT-1997; 97US-063486P. 24-OCT-1997;  
97US-062814P. 24-OCT-1997; 97US-062816P. 24-OCT-1997;

97US-063045P. 24-OCT-1997; 97US-063120P. 24-OCT-1997;  
 97US-063121P. 24-OCT-1997; 97US-063127P. 24-OCT-1997;  
 97US-063128P. 27-OCT-1997; 97US-063327P. 27-OCT-1997;  
 97US-063329P. 28-OCT-1997; 97US-063541P. 28-OCT-1997;  
 97US-063542P. 28-OCT-1997; 97US-063544P. 28-OCT-1997;  
 97US-063549P. 28-OCT-1997; 97US-063550P. 28-OCT-1997;  
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 97US-063704P. 29-OCT-1997; 97US-063732P. 29-OCT-1997;  
 97US-063734P. 29-OCT-1997; 97US-063735P. 29-OCT-1997;  
 97US-063738P. 29-OCT-1997; 97US-064215P. 31-OCT-1997;  
 97US-063870P. 31-OCT-1997; 97US-064103P. 03-NOV-1997;  
 97US-064248P. 07-NOV-1997; 97US-064809P. 12-NOV-1997;  
 97US-065186P. 17-NOV-1997; 97US-065846P. 18-NOV-1997;  
 97US-065693P. 21-NOV-1997; 97US-066120P. 21-NOV-1997;  
 97US-066364P. 24-NOV-1997; 97US-066453P. 24-NOV-1997;  
 97US-066466P. 24-NOV-1997; 97US-066511P. 24-NOV-1997;  
 97US-066770P. 24-NOV-1997; 97US-066772P. 25-NOV-1997;  
 97US-066840P. 12-DEC-1997; 97US-069425P. 04-JUN-1998;  
 98US-088026P. 10-SEP-1998; 98US-099803P. 14-SEP-1998;  
 98US-100262P. 17-SEP-1998; 98US-100858P. 13-OCT-1998;  
 98US-104080P. 20-NOV-1998; 98US-109304P. 22-DEC-1998;  
 98US-113296P. 07-JUL-1999; 99US-143048P. 26-JUL-1999;  
 99US-145698P. 28-JUL-1999; 99US-146222P. 18-SEP-2000;  
 2000US-0665350; Assignee: (GETH ) GENENTECH INC; Cross Reference:  
 WPI; 2003-341586/32. P-PSDB; ABU69641; Patent Format: Claim 2; Fig  
 41; 473pp; English.

COMMENT

The invention describes sixty one nucleic acids encoding PRO  
 polypeptides (secreted and transmembrane). The PRO polypeptides and  
 nucleic acids are useful in diagnosing or treating enterocolitis,  
 gastrointestinal ulceration, skin diseases associated with abnormal  
 keratinocyte differentiation, e.g. psoriasis or epithelial cancers  
 such as squamous cell carcinoma, Alzheimer's disease, Parkinson's  
 disease, amyotrophic lateral sclerosis, inflammatory diseases, e.g.  
 rheumatoid arthritis, asthma or multiple sclerosis, organ failure,  
 atherosclerosis, cardiac injury, infertility, birth defects,  
 premature aging, AIDS, cancer, diabetic complications, or mutations  
 in general. The polypeptides are also useful for wound repair and  
 associated therapies concerned with re-growth of tissue. The PRO  
 polypeptides and nucleic acid molecules are also useful in gene  
 therapy, and as molecular weight markers for protein electrophoresis  
 purposes. The anti-PRO antibodies may be used in diagnostic assays  
 for PRO, or for the affinity purification of PRO from recombinant  
 cell culture or natural sources. This sequence encodes a novel human  
 PRO polypeptide.

FEATURES

Location/Qualifiers

BASE COUNT 294 a 497 c 506 g 318 t 1 others  
 ORIGIN

P\_ACD07493 Novel human secreted and transmembrane protein PRO317 cDNA. 616 bp,  
 cDNA, PAT 07-AUG-2003

ACCESSION P\_ACD07493

KEYWORDS Human; secreted and transmembrane protein; PRO; pharmaceutical;  
 diagnostic; biosensor; bioreactor; Parkinson's disease; Alzheimer's  
 disease; inflammation; nephritis; wound healing; nerve repair;  
 collateral blood vessel formation; cancer; colorectal cancer;  
 haemorrhage; rheumatoid arthritis; diabetes; cirrhosis; fibrosis;  
 restenosis; dermal fibrotic condition; keloid; scarring; ischaemia;

stroke; hypertension; heart attack; atherosclerosis; infertility;  
gene therapy; gene; patent; GENESEQ patentdb.

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 1616)

AUTHORS Ashkenazi,A., Botstein,D., Desnoyers,L., Eaton,D.L., Ferrara,N.  
Filvaroff,E., Fong,S., Gao,W., Gerber,H., Gerritsen,M.E.,  
Goddard,A. Godowski,P.J., Grimaldi,J.C., Gurney,A.L.,  
Hillan,K.J., Kljavin,I.J. Mather,J.P., Pan,J., Paoni,N.F.,  
Roy,M.A., Stewart,T.A., Tumas,D. Williams,P.M., Wood,W.I.

TITLE New genes and secreted and transmembrane polypeptides (e.g. PRO245  
or PRO335), useful for treating or diagnosing e.g. Alzheimer's  
disease, cancers, hemorrhage, rheumatoid arthritis, diabetes,  
cirrhosis, ischemia or strokes -

JOURNAL Patent: US2002197671-A1; Filing Date: 17-JUL-2001; 2001US-0907824;  
Publication Date: 26-DEC-2002; Priority: 10-SEP-1998;

98WO-US18824. 14-SEP-1998; 98WO-US19177. 16-SEP-1998;  
98WO-US19330. 17-SEP-1998; 98WO-US19437. 01-DEC-1998;  
98WO-US25108. 08-SEP-1999; 99WO-US20594. 13-SEP-1999;  
99WO-US20944. 15-SEP-1999; 99WO-US21090. 15-SEP-1999;  
99WO-US21547. 05-OCT-1999; 99WO-US23089. 29-NOV-1999;  
99WO-US28214. 30-NOV-1999; 99WO-US28313. 01-DEC-1999;  
99WO-US28301. 02-DEC-1999; 99WO-US28564. 02-DEC-1999;  
99WO-US28565. 16-DEC-1999; 99WO-US30095. 20-DEC-1999;  
99WO-US30911. 20-DEC-1999; 99WO-US30999. 05-JAN-2000;  
2000WO-US00219. 11-FEB-2000; 2000WO-US03565. 22-FEB-2000;  
2000WO-US04414. 24-FEB-2000; 2000WO-US05004. 02-MAR-2000;  
2000WO-US05841. 20-MAR-2000; 2000WO-US07377. 30-MAR-2000;  
2000WO-US08439. 22-MAY-2000; 2000WO-US14042. 02-JUN-2000;  
2000WO-US15264. 28-JUL-2000; 2000WO-US20710. 24-AUG-2000;  
2000WO-US23328. 17-SEP-1997; 97US-059113P. 17-SEP-1997;  
97US-059115P. 17-SEP-1997; 97US-059117P. 17-SEP-1997;  
97US-059119P. 17-SEP-1997; 97US-059121P. 17-SEP-1997;  
97US-059122P. 17-SEP-1997; 97US-059184P. 18-SEP-1997;  
97US-059263P. 18-SEP-1997; 97US-059266P. 15-OCT-1997;  
97US-062125P. 17-OCT-1997; 97US-062285P. 17-OCT-1997;  
97US-062287P. 21-OCT-1997; 97US-063486P. 24-OCT-1997;  
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97US-063045P. 24-OCT-1997; 97US-063120P. 24-OCT-1997;  
97US-063121P. 24-OCT-1997; 97US-063127P. 24-OCT-1997;  
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97US-063549P. 28-OCT-1997; 97US-063550P. 28-OCT-1997;  
97US-063564P. 29-OCT-1997; 97US-063435P. 29-OCT-1997;  
97US-063704P. 29-OCT-1997; 97US-063732P. 29-OCT-1997;  
97US-063734P. 29-OCT-1997; 97US-063735P. 29-OCT-1997;  
97US-063738P. 29-OCT-1997; 97US-064215P. 31-OCT-1997;  
97US-063870P. 31-OCT-1997; 97US-064103P. 03-NOV-1997;  
97US-064248P. 07-NOV-1997; 97US-064809P. 12-NOV-1997;  
97US-065186P. 17-NOV-1997; 97US-065846P. 18-NOV-1997;  
97US-065693P. 21-NOV-1997; 97US-066120P. 21-NOV-1997;  
97US-066364P. 24-NOV-1997; 97US-066453P. 24-NOV-1997;  
97US-066466P. 24-NOV-1997; 97US-066511P. 24-NOV-1997;  
97US-066770P. 24-NOV-1997; 97US-066772P. 18-SEP-2000;  
2000US-0665350; Assignee: (GETH ) GENENTECH INC; Cross Reference:  
WPI; 2003-370793/35. P-PSDB; ABO01793; Patent Format: Claim 2; Fig

41; 482pp; English.

COMMENT The invention describes a new isolated nucleic acid molecule comprising the full length coding sequence of the DNA deposited with the American Type Culture Collection (e.g. ATCC Deposit No. 209258) ,or a sequence with at least 80% identity to a DNA encoding a PRO polypeptide comprising any of 61 sequences having 164-1119 amino acids fully defined in the specification. The PRO polypeptides or polynucleotides are useful as pharmaceuticals, diagnostics, biosensors or bioreactors. These are particularly useful for detecting or treating e.g. Parkinson's disease, Alzheimer's disease, inflammations, nephritis, wound healing, nerve repair, collateral blood vessel formation, cancers (e.g. colorectal cancer), haemorrhage (or reduce risk for haemorrhage), rheumatoid arthritis, diabetes, cirrhosis of the liver, fibrosis of the lungs, restenosis, dermal fibrotic conditions (e.g. keloids or scarring), ischaemia, strokes, hypertension, heart attacks, atherosclerosis, or infertility in mammals (e.g. humans, dogs, cats, cattle, horses, sheep, pigs, goats, or rabbits) The PRO polypeptides are useful as targets for therapeutic intervention in these diseases, and diagnostic determination of the presence of these diseases. The PRO polypeptides are also useful as molecular weight markers, or for chromosome identification. The PRO genes are useful as hybridisation probes, or for screening libraries of human cDNA, genomic DNA or mRNA. The PRO genes may also be used in gene therapy, particularly for replacing a defective gene. This sequence encodes a novel human secreted and transmembrane PRO polypeptide.

FEATURES Location/Qualifiers  
BASE COUNT 294 a 497 c 506 g 318 t 1 others  
ORIGIN

P\_ACD23584 Human PRO polynucleotide #20. 616 bp, cDNA, PAT.26-AUG-2003

ACCESSION P\_ACD23584

KEYWORDS Human; PRO; gene; ss; secreted polypeptide; transmembrane polypeptide; leukocyte homing; rheumatoid arthritis; psoriasis; multiple sclerosis; mucosal lesion; enterocolitis Zollinger Ellison syndrome; asthma; antiasthmatic; antirheumatic; antiarthritic; neuroprotective; patent; GENESEQ patentdb.

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 1616)

AUTHORS Ashkenazi,A., Botstein,D., Desnoyers,L., Eaton,D.L., Ferrara,N. Filvaroff,E., Fong,S., Gao,W., Gerber,H., Gerritsen,M.E., Goddard,A. Godowski,P.J., Grimaldi,J.C., Gurney,A.L., Hillan,K.J., Kljavin,I.J. Mather,J.P., Pan,J., Paoni,N.F., Roy,M.A., Stewart,T.A., Tumas,D. Williams,P.M., Wood,W.I.

TITLE Novel secreted and transmembrane polypeptide for modulating biological activity of cell expressing the polypeptide, identifying agonists or antagonists of polypeptide, and as molecular weight markers -

JOURNAL Patent: US2003064923-A1; Filing Date: 13-JUL-2001; 2001US-0905348; Publication Date: 03-APR-2003; Priority: 10-SEP-1998; 98WO-US18824. 14-SEP-1998; 98WO-US19177. 16-SEP-1998; 98WO-US19330. 17-SEP-1998; 98WO-US19437. 01-DEC-1998; 98WO-US25108. 08-SEP-1999; 99WO-US20594. 13-SEP-1999; 99WO-US20944. 15-SEP-1999; 99WO-US21090. 15-SEP-1999; 99WO-US21547. 05-OCT-1999; 99WO-US23089. 29-NOV-1999; 99WO-US28214. 30-NOV-1999; 99WO-US28313. 01-DEC-1999;



99WO-US28301. 02-DEC-1999; 99WO-US28564. 02-DEC-1999;  
 99WO-US28565. 16-DEC-1999; 99WO-US30095. 20-DEC-1999;  
 99WO-US30911. 20-DEC-1999; 99WO-US30999. 05-JAN-2000;  
 2000WO-US00219. 11-FEB-2000; 2000WO-US03565. 22-FEB-2000;  
 2000WO-US04414. 24-FEB-2000; 2000WO-US05004. 02-MAR-2000;  
 2000WO-US05841. 20-MAR-2000; 2000WO-US07377. 30-MAR-2000;  
 2000WO-US08439. 22-MAY-2000; 2000WO-US14042. 02-JUN-2000;  
 2000WO-US15264. 28-JUL-2000; 2000WO-US20710. 24-AUG-2000;  
 2000WO-US23328. 17-SEP-1997; 97US-059113P. 17-SEP-1997;  
 97US-059115P. 17-SEP-1997; 97US-059117P. 17-SEP-1997;  
 97US-059119P. 17-SEP-1997; 97US-059121P. 17-SEP-1997;  
 97US-059122P. 17-SEP-1997; 97US-059184P. 18-SEP-1997;  
 97US-059263P. 18-SEP-1997; 97US-059266P. 15-OCT-1997;  
 97US-062125P. 17-OCT-1997; 97US-062285P. 17-OCT-1997;  
 97US-062287P. 21-OCT-1997; 97US-063486P. 24-OCT-1997;  
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 97US-063045P. 24-OCT-1997; 97US-063120P. 24-OCT-1997;  
 97US-063121P. 24-OCT-1997; 97US-063127P. 24-OCT-1997;  
 97US-063128P. 27-OCT-1997; 97US-063327P. 27-OCT-1997;  
 97US-063329P. 28-OCT-1997; 97US-063541P. 28-OCT-1997;  
 97US-063542P. 28-OCT-1997; 97US-063544P. 28-OCT-1997;  
 97US-063549P. 28-OCT-1997; 97US-063550P. 28-OCT-1997;  
 97US-063564P. 29-OCT-1997; 97US-063435P. 29-OCT-1997;  
 97US-063704P. 29-OCT-1997; 97US-063732P. 29-OCT-1997;  
 97US-063734P. 29-OCT-1997; 97US-063735P. 29-OCT-1997;  
 97US-063738P. 29-OCT-1997; 97US-064215P. 31-OCT-1997;  
 97US-063870P. 31-OCT-1997; 97US-064103P. 03-NOV-1997;  
 97US-064248P. 07-NOV-1997; 97US-064809P. 12-NOV-1997;  
 97US-065186P. 17-NOV-1997; 97US-065846P. 18-NOV-1997;  
 97US-065693P. 21-NOV-1997; 97US-066120P. 21-NOV-1997;  
 97US-066364P. 24-NOV-1997; 97US-066453P. 24-NOV-1997;  
 97US-066466P. 24-NOV-1997; 97US-066511P. 24-NOV-1997;  
 97US-066770P. 24-NOV-1997; 97US-066772P. 25-NOV-1997;  
 97US-066840P. 12-DEC-1997; 97US-069425P. 04-JUN-1998;  
 98US-088026P. 10-SEP-1998; 98US-099803P. 14-SEP-1998;  
 98US-100262P. 17-SEP-1998; 98US-100858P. 13-OCT-1998;  
 98US-104080P. 20-NOV-1998; 98US-109304P. 22-DEC-1998;  
 98US-113296P. 07-JUL-1999; 99US-143048P. 26-JUL-1999;  
 99US-145698P. 28-JUL-1999; 99US-146222P. 18-SEP-2000;  
 2000US-0665350; Assignee: (GETH ) GENENTECH INC; Cross Reference:  
 WPI; 2003-567190/53. P-PSDB; ABO17574; Patent Format: Claim 2; Fig  
 41; 471pp; English.

COMMENT

The invention relates to human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The polypeptides are useful for detecting PRO polypeptides and for linking a bioactive molecule to a cell expressing the polypeptides, where the bioactive molecule is a toxin, radiolabel or an antibody. The bioactive material causes the death of the cell. The polypeptides or antibodies specific to the polypeptides are useful for modulating at least one biological activity of a cell expressing the polypeptides. The polypeptides are useful for treating disorders associated with leukocyte homing such as asthma, rheumatoid arthritis, psoriasis and multiple sclerosis, repair of acute and chronic mucosal lesions such as enterocolitis and Zollinger Ellison syndrome and for identifying agonists or antagonists of the polypeptides. The polynucleotides are useful as hybridization probes, in chromosome and gene mapping, in generation of antisense

RNA and DNA, in the preparation of PRO polypeptides and for generating probes for polymerase chain reaction (PCR), Northern analysis, Southern analysis and Western analysis. This sequence represents a human PRO polynucleotide of the invention.

FEATURES Location/Qualifiers

BASE COUNT 294 a 497 c 506 g 318 t 1 others

ORIGIN

AY358873 Homo sapiens clone DNA33461 LEFTB (UNQ278) mRNA, complete cds.  
1616 bp, mRNA, linear, PRI 03-OCT-2003

ACCESSION AY358873

VERSION AY358873.1 GI:37182863

KEYWORDS FLI\_CDNA.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 1616)

AUTHORS Clark,H.F., Gurney,A.L., Abaya,E., Baker,K., Baldwin,D., Brush,J.,  
Chen,J., Chow,B., Chui,C., Crowley,C., Currell,B., Deuel,B.,  
Dowd,P., Eaton,D., Foster,J., Grimaldi,C., Gu,Q., Hass,P.E.,  
Heldens,S., Huang,A., Kim,H.S., Klimowski,L., Jin,Y., Johnson,S.,  
Lee,J., Lewis,L., Liao,D., Mark,M., Robbie,E., Sanchez,C.,  
Schoenfeld,J., Seshagiri,S., Simmons,L., Singh,J., Smith,V.,  
Stinson,J., Vagts,A., Vandlen,R., Watanabe,C., Wieand,D., Woods,K.,  
Xie,M.H., Yansura,D., Yi,S., Yu,G., Yuan,J., Zhang,M., Zhang,Z.,  
Goddard,A., Wood,W.I. and Godowski,P.

TITLE The Secreted Protein Discovery Initiative (SPDI), a Large-Scale  
Effort to Identify Novel Human Secreted and Transmembrane Proteins:  
A Bioinformatics Assessment

JOURNAL Genome Res. 13 (10), 2265-2270 (2003)

PUBMED 12975309

REFERENCE 2 (bases 1 to 1616)

AUTHORS Clark,H.F.

TITLE Direct Submission

JOURNAL Submitted (01-AUG-2003) Department of Bioinformatics, Genentech,  
Inc., 1 DNA Way, South San Francisco, CA 94080, USA

FEATURES Location/Qualifiers

source 1..1616  
/organism="Homo sapiens"  
/mol\_type="mRNA"  
/db\_xref="taxon:9606"  
/clone="DNA33461"  
gene 1..1616  
/locus\_tag="UNQ278"  
CDS 68..1168  
/locus\_tag="UNQ278"  
/note="PRO317"  
/codon\_start=1  
/product="LEFTB"  
/protein\_id="AAQ89232.1"  
/db\_xref="GI:37182864"

BASE COUNT 294 a 497 c 506 g 318 t 1 others

ORIGIN

AX076929 Sequence 41 from Patent WO0105836. 1616 bp,  
DNA, linear, PAT 22-FEB-2001

ACCESSION AX076929  
 VERSION AX076929.1 GI:13121583  
 KEYWORDS  
 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 REFERENCE 1  
 AUTHORS Botstein,D., Goddard,A., Gurney,A.L., Hillan,K.J., Roy,M.A. and  
 Wood,W.I.  
 TITLE Polypeptidic compositions and methods for the treatment of tumors  
 JOURNAL Patent: WO 0105836-A 41 25-JAN-2001;  
 Genentech, Inc. (US)  
 FEATURES Location/Qualifiers  
 source 1..1616  
 /organism="Homo sapiens"  
 /mol\_type="unassigned DNA"  
 /db\_xref="taxon:9606"  
 BASE COUNT 294 a 497 c 506 g 318 t 1 others  
 ORIGIN

AX697522 Sequence 113 from Patent WO0104311. 1616 bp,  
 DNA, linear, PAT 02-APR-2003

ACCESSION AX697522  
 VERSION AX697522.1 GI:29498634  
 KEYWORDS  
 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 REFERENCE 1  
 AUTHORS Ashkenazi,A.J., Botstein,D., Desnoyers,L., Eaton,D.L., Ferrara,N.,  
 Filvaroff,E., Fong,S., Gao,W.Q., Gerber,H., Gerritsen,M.E.,  
 Goddard,A., Godowski,P.J., Grimaldi,C.J., Gurney,A.L., Hillan,K.J.,  
 Kljavin,I.J., Mather,J.P., Pan,J., Paoni,N.F., Roy,M.A.,  
 Stewart,T.A., Tumas,D., Williams,P.M. and Wood,W.I.  
 TITLE Secreted and transmembrane polypeptides and nucleic acids encoding  
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 JOURNAL Patent: WO 0104311-A 113 18-JAN-2001;  
 Genentech Inc. (US)  
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 BASE COUNT 294 a 497 c 506 g 318 t 1 others  
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BD075461 Secretory and transmembrane polypeptide and nucleic acid encoding  
 the same. 1616 bp, DNA, linear, PAT 27-AUG-2002

ACCESSION BD075461  
 VERSION BD075461.1 GI:22621064  
 KEYWORDS JP 2001516580-A/94.  
 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 1616)  
 AUTHORS Wood,W.I., Gurney,A.L., Goddard,A., Penica,D., Chen,J. and Yuan,J.  
 TITLE Secretory and transmembrane polypeptide and nucleic acid encoding  
 the same  
 JOURNAL Patent: JP 2001516580-A 94 02-OCT-2001;  
 GENENTECH INC  
 COMMENT OS Homo sapiens (human)  
 PN JP 2001516580-A/94  
 PD 02-OCT-2001  
 PF 16-SEP-1998 JP 2000511867  
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 25-NOV-1997 US 60/066840  
 PI WILLIAM I WOOD,AUSTIN L GURNEY,AUDLEY GODDARD,DIANE PENICA, PI  
 JEAN CHEN,  
 PI JEAN YUAN  
 PC C12N15/09,C07K14/47,C07K14/705,C07K16/18,C07K16/28,C07K19/00,  
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 PC C12N1/21,C12N5/10,C12P21/02,C12P21/08,C12Q1/02//(C12P21/08, PC  
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 PC C12N15/00,C12N5/00  
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 BASE COUNT 294 a 497 c 506 g 318 t 1 others  
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 BD172321 Secreted and transmembrane polypeptides and nucleic acids encoding

the same. 1616 bp, DNA, linear, PAT 18-FEB-2003

ACCESSION BD172321

VERSION BD172321.1 GI:28413621

KEYWORDS JP 2002223786-A/94.

SOURCE Homo sapiens (human).

ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 1616)

AUTHORS Wood,W.I., Gurney,A.L., Goddard,A., Pennica,D., Zheng,J. and  
Yuan,J.

TITLE Secreted and transmembrane polypeptides and nucleic acids encoding  
the same

JOURNAL Patent: JP 2002223786-A 94 13-AUG-2002;  
GENENTECH INC

COMMENT OS Homo sapiens (human)

PN JP 2002223786-A/94

PD 13-AUG-2002

PF 18-DEC-2001 JP 2001385135

PR 17-SEP-1997 US 60/059115,17-SEP-1997 US 60/059184 PR

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24-NOV-1997 US 60/066770,24-NOV-1997 US 60/066511 PR

24-NOV-1997 US 60/066453,25-NOV-1997 US 60/066840 PI

WILLIAM I WOOD,AUSTIN L GURNEY,AUDREY GODDARD,DIANE PENNICA, PI

JIAN ZHENG,

PI JEAN YUAN

PC C12N15/09,C07K14/47,C07K16/18,C07K19/00,C12N1/19,C12N1/21, PC  
C12N5/10,

PC

C12P21/02//C12P21/08,(C12P21/02,C12R1:19),(C12P21/02,C12R1:91), PC  
(C12P21/02,C12R1:645),C12N15/00,C12N5/00

CC Secreted and transmembrane polypeptides and nucleic acids  
encoding the same

FH Key Location/Qualifiers

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FEATURES                      Location/Qualifiers  
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BASE COUNT                      294 a    497 c    506 g    318 t                      1 others  
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BD172640                      Secreted and transmembrane polypeptides and nucleic acids encoding  
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ACCESSION                      BD172640  
 VERSION                      BD172640.1. GI:28413942  
 KEYWORDS                      JP 2002238586-A/94.  
 SOURCE                      Homo sapiens (human)  
     ORGANISM                      Homo sapiens  
                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
                                 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE                      1 (bases 1 to 1616)  
     AUTHORS                      Wood,W.I., Gurney,A.L., Goddard,A., Pennica,D., Zheng,J. and  
                                 Yuan,J.  
     TITLE                      Secreted and transmembrane polypeptides and nucleic acids encoding  
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     JOURNAL                      Patent: JP 2002238586-A 94 27-AUG-2002;  
                                 GENENTECH INC

COMMENT                      OS    Homo sapiens (human)  
     PN                      JP 2002238586-A/94  
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     17-SEP-1997 US                      60/059119,18-SEP-1997 US                      60/059263 PR  
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     24-NOV-1997 US                      60/066772,24-NOV-1997 US                      60/066466 PR  
     24-NOV-1997 US                      60/066770,24-NOV-1997 US                      60/066511 PR  
     24-NOV-1997 US                      60/066453,25-NOV-1997 US                      60/066840 PI  
     WILLIAM I WOOD,AUSTIN L GURNEY,AUDREY GODDARD,DIANE PENNICA, PI  
     JIAN ZHENG,  
     PI                      JEAN YUAN  
     PC                      C12N15/09,C07K14/47,C07K16/18,C07K19/00,C12N1/19,C12N1/21, PC

C12N5/10,  
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 KEYWORDS JP 2002238587-A/94.  
 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 1616)  
 AUTHORS Wood, W.I., Gurney, A.L., Goddard, A., Pennica, D., Zheng, J. and  
 Yuan, J.  
 TITLE Secreted and transmembrane polypeptides and nucleic acids encoding  
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 JOURNAL Patent: JP 2002238587-A 94 27-AUG-2002;  
 GENENTECH INC

COMMENT OS Homo sapiens (human)  
 PN JP 2002238587-A/94  
 PD 27-AUG-2002  
 PF 18-DEC-2001 JP 2001385248  
 PR 17-SEP-1997 US 60/059115, 17-SEP-1997 US 60/059184 PR  
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 24-NOV-1997 US 60/066770, 24-NOV-1997 US 60/066511 PR  
 24-NOV-1997 US 60/066453, 25-NOV-1997 US 60/066840 PI  
 WILLIAM I WOOD, AUSTIN L GURNEY, AUDREY GODDARD, DIANE PENNICA, PI  
 JIAN ZHENG,  
 PI JEAN YUAN  
 PC C12N15/09, C07K14/47, C07K16/18, C12N1/19, C12N1/21, C12N5/10, PC  
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 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
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 REFERENCE 1 (bases 1 to 1616)  
 AUTHORS Wood, W.I., Gurney, A.L., Goddard, A., Pennica, D., Zheng, J. and  
 Yuan, J.  
 TITLE Secreted and transmembrane polypeptides and nucleic acids encoding  
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 JOURNAL Patent: JP 2002238588-A 94.27-AUG-2002;  
 GENENTECH INC  
 COMMENT OS Homo sapiens (human)  
 PN JP 2002238588-A/94  
 PD 27-AUG-2002  
 PF 18-DEC-2001 JP 2001385315  
 PR 17-SEP-1997 US 60/059115, 17-SEP-1997 US 60/059184 PR  
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 WILLIAM I WOOD, AUSTIN L GURNEY, AUDREY GODDARD, DIANE PENNICA, PI  
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 PI JEAN YUAN  
 PC C12N15/09, C07K14/435, C07K16/18, C07K19/00, C12N1/19, C12N1/21, PC  
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 BD175312 Secretory and transmembrane polypeptide and nucleic acid encoding  
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 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 REFERENCE 1 (bases 1 to 1616)  
 AUTHORS Wood, W.I., Gurney, A.L., Goddard, A., Pennica, D., Zheng, J. and  
 Yuan, J.  
 TITLE Secretory and transmembrane polypeptide and nucleic acid encoding  
 the same  
 JOURNAL Patent: JP 2002253280-A 94 10-SEP-2002;  
 GENENTECH INC  
 COMMENT OS Homo sapiens (human)  
 PN JP 2002253280-A/94  
 PD 10-SEP-2002  
 PF 18-DEC-2001 JP 2001385319  
 PR 17-SEP-1997 US 60/059115, 17-SEP-1997 US 60/059184 PR

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 29-OCT-1997 US 60/064215,29-OCT-1997 US 60/063735 PR  
 29-OCT-1997 US 60/063732,31-OCT-1997 US 60/064103 PR  
 31-OCT-1997 US 60/063870,03-NOV-1997 US 60/064248 PR  
 07-NOV-1997 US 60/064809,12-NOV-1997 US 60/065186 PR  
 17-NOV-1997 US 60/065846,18-NOV-1997 US 60/065693 PR  
 21-NOV-1997 US 60/066120,21-NOV-1997 US 60/066364 PR  
 24-NOV-1997 US 60/066772,24-NOV-1997 US 60/066466 PR  
 24-NOV-1997 US 60/066770,24-NOV-1997 US 60/066511 PR  
 24-NOV-1997 US 60/066453,25-NOV-1997 US 60/066840 PI  
 WILLIAM I WOOD,AUSTIN L GURNEY,AUDREY GODDARD,DIANE PENNICA, PI  
 JIAN ZHENG,  
 PI JEAN YUAN  
 PC C12N15/09,A61K45/00,A61P1/00,A61P13/12,A61P17/00,A61P17/06, PC  
 A61P25/00,  
 PC A61P25/16,A61P25/28,A61P31/12,A61P35/00,C07K14/47,C07K16/18,  
 PC C07K19/00,  
 PC C12N1/19,C12N1/21,C12N5/10//A61K38/00,A61K39/395,A61K39/395;  
 PC A61P43/00,  
 PC C12P21/08,(C12N1/19,C12R1:645),(C12N1/21,C12R1:19),(C12N5/10,  
 PC C12R1:91),  
 PC C12N15/00,C12N5/00,A61K37/02,(C12N5/00,C12R1:91) CC  
 Secretory and transmembrane polypeptide and nucleic acid CC  
 encoding the same  
 FH Key Location/Qualifiers  
 FT source 1..1616  
 FT /organism='Homo sapiens (human)'.  
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 /organism="Homo sapiens"  
 /mol\_type="genomic DNA"  
 /db\_xref="taxon:9606"  
 BASE COUNT 294 a 497 c 506 g 318 t 1 others  
 ORIGIN  
 NM\_020997 Homo sapiens left-right determination, factor B (LEFTB), mRNA.  
 1647 bp, mRNA, linear, PRI 06-SEP-2003  
 ACCESSION NM\_020997  
 VERSION NM\_020997.2 GI:27436943  
 KEYWORDS  
 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 1647)

AUTHORS Yashiro,K., Saijoh,Y., Sakuma,R., Tada,M., Tomita,N., Amano,K., Matsuda,Y., Monden,M., Okada,S. and Hamada,H.

TITLE Distinct transcriptional regulation and phylogenetic divergence of human LEFTY genes

JOURNAL Genes Cells 5 (5), 343-357 (2000)

MEDLINE 20345604

PUBMED 10886363

REMARK This paper refers to LEFTB as LEFTY1.

REFERENCE 2 (bases 1 to 1647)

AUTHORS Kosaki,K., Bassi,M.T., Kosaki,R., Lewin,M., Belmont,J., Schauer,G. and Casey,B.

TITLE Characterization and mutation analysis of human LEFTY A and LEFTY B, homologues of murine genes implicated in left-right axis development

JOURNAL Am. J. Hum. Genet. 64 (3), 712-721 (1999)

MEDLINE 99162193

PUBMED 10053005

COMMENT REVIEWED REFSEQ: This record has been curated by NCBI staff. The reference sequence was derived from AF081512.1 and BC027883.1. On Dec 31, 2002 this sequence version replaced gi:10337602.

Summary: This gene encodes a member of the TGF-beta family of proteins. A similar secreted protein in mouse plays a role in left-right asymmetry determination of organ systems during development. Alternative processing of this protein can yield three different products. This gene is closely linked to both a related family member and a related pseudogene.

COMPLETENESS: complete on the 3' end.

FEATURES

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/mol\_type="mRNA"

/db\_xref="taxon:9606"

/chromosome="1"

/map="1q42.1"

gene 1..1647

/gene="LEFTB"

/note="synonyms: LEFTY1, LEFTY2, LEFTYB"

/db\_xref="LocusID:10637"

/db\_xref="MIM:603037"

CDS 71..1171

/gene="LEFTB"

/note="go\_function: transforming growth factor-beta receptor binding [goid 0005160] [evidence IEA]; go\_process: TGFbeta-receptor signaling pathway [goid 0007179] [evidence TAS] [pmid 10053005]; go\_process: development [goid 0007275] [evidence IEA]; go\_process: cell growth [goid 0016049] [evidence IEA]"

/codon\_start=1

/product="left-right determination, factor B preproprotein"

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/db\_xref="GI:10337603"

/db\_xref="LocusID:10637"

/db\_xref="MIM:603037"

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               / gene="LEFTB"  
               / note="TGFB\_propeptide; Region: TGF-beta propeptide. This  
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               TGF-beta. LAP is a homodimer which is disulfide linked to  
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               / note="alternate processing"  
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               / product="left-right determination, factor B mature  
               protein 2"  
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               / gene="LEFTB"  
               / note="TGFB; Region: Transforming growth factor-beta  
               (TGF-beta) family"  
               / db\_xref="CDD:smart00204"  
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               / product="left-right determination, factor B mature  
               protein 3"  
               / note="alternate processing"  
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               / gene="LEFTB"  
               / note="left-right determination, factor B proprotein"  
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               / allele="A"  
               / db\_xref="dbSNP:2295418"  
 polyA\_signal 1596..1601  
               / gene="LEFTB"  
 polyA\_site 1616  
               / gene="LEFTB"  
               / evidence=experimental  
 BASE COUNT 323 a 499 c 507 g 318 t  
 ORIGIN

BC027883 Homo sapiens, left-right determination, factor B, clone MGC:34249  
 IMAGE:5221120, mRNA, complete cds. 1644 bp,  
 mRNA, linear, PRI 01-MAY-2002  
 ACCESSION BC027883  
 VERSION BC027883.1 GI:20379728  
 KEYWORDS MGC.  
 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
           Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 REFERENCE 1 (bases 1 to 1644)

AUTHORS Strausberg,R.  
 TITLE Direct Submission  
 JOURNAL Submitted (08-APR-2002) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, USA  
 REMARK NIH-MGC Project URL: <http://mgc.nci.nih.gov>  
 COMMENT Contact: MGC help desk  
 Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)  
 Tissue Procurement: Life Technologies, Inc.  
 cDNA Library Preparation: Life Technologies, Inc.  
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)  
 DNA Sequencing by: National Institutes of Health Intramural Sequencing Center (NISC), Gaithersburg, Maryland;  
 Web site: <http://www.nisc.nih.gov/>  
 Contact: [nisc\\_mgc@nhgri.nih.gov](mailto:nisc_mgc@nhgri.nih.gov)  
 Akhter,N., Ayele,K., Beckstrom-Sternberg,S.M., Benjamin,B., Blakesley,R.W., Bouffard,G.G., Breen,K., Brinkley,C., Brooks,S., Dietrich,N.L., Granite,S., Guan,X., Gupta,J., Haghighi,P., Hansen,N., Ho,S.-L., Karlins,E., Laric,P., Legaspi,R., Maduro,Q.L., Masiello,C., Maskeri,B., Mastrian,S.D., McCloskey,J.C., McDowell,J., Pearson,R., Stantripop,S., Thomas,P.J., Touchman,J.W., Tsurgeon,C., Vogt,J.L., Walker,M.A., Wetherby,K.D., Wiggins,L., Young,A., Zhang,L.-H. and Green,E.D.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: <http://image.llnl.gov>  
 Series: IRAK Plate: 49 Row: k Column: 2  
 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 10337602.

FEATURES Location/Qualifiers  
 source 1..1644  
 /organism="Homo sapiens"  
 /mol\_type="mRNA"  
 /db\_xref="LocusID:10637"  
 /db\_xref="taxon:9606"  
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 /clone\_lib="NIH\_MGC\_120"  
 /lab\_host="DH10B"  
 /note="Vector: pCMV-SPORT6"  
 CDS 68..1168  
 /codon\_start=1  
 /product="left-right determination, factor B"  
 /protein\_id="AAH27883.1"  
 /db\_xref="GI:20379729"

BASE COUNT 223 a 496 c 506 g 319 t  
 ORIGIN

P\_AAD45128 Human Lefty cDNA. 688 bp, cDNA, PAT 27-DEC-2002

ACCESSION P\_AAD45128

KEYWORDS Human; Nodal protein; Lefty protein; cell growth; cell differentiation; tumour; intestinal lung disease; cancer; arthritis; immunosuppression; autoimmunity; leukaemia; lymphoma; immunity; inflammatory bowel disease; myelosuppression; cytostatic; immunosuppressive; antiinflammatory; gene; patent; GENESEQ

patentdb.

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 1688)

AUTHORS Ebner,R., Soppet,D.R., Ruben,S.M.

TITLE Novel Nodal and Lefty polypeptides useful for diagnosing or treating cell growth and differentiation related disorders in humans, e.g. cancer, autoimmunity, arthritis and immunosuppression -

JOURNAL Patent: US2002086351-A1; Filing Date: 20-AUG-1998; 98US-0137415; Publication Date: 04-JUL-2002; Priority: 20-AUG-1998; 98US-0137415; Assignee: (EBNE/) EBNER R. (SOPP/) SOPPET D R. (RUBE/) RUBEN S M; Cross Reference: WPI; 2002-673479/72. P-PSDB; AAE28182; Patent Format: Claim 2; Page 49-51; 68pp; English.

COMMENT The present invention relates to novel Nodal and Lefty polypeptides and polynucleotides encoding such proteins. Sequences of the invention are useful for preventing, treating or ameliorating medical conditions. They are useful to diagnose or treat cell growth and differentiation related disorders in mammals, preferably humans such as tumour, intestinal lung disease, cancer and any dis-regulation of growth and differentiation pattern of cell function including autoimmunity, arthritis, leukaemia, lymphoma, immunosuppression, immunity, humoral immunity, inflammatory bowel disease or myelosuppression. The present sequence is human Lefty cDNA.

FEATURES Location/Qualifiers

CDS 53..1153

/\*tag= a

/product= "Human Lefty protein"

sig\_peptide 53..106

/\*tag= b

mat\_peptide 107..1150

/\*tag= c

/product= "Human mature Lefty protein"

BASE COUNT 315 a 514 c 525 g 334 t

ORIGIN

P\_AAX31925 Human lefty protein encoding DNA. 688 bp, DNA, PAT 18-JUN-1999

ACCESSION P\_AAX31925

KEYWORDS Nodal protein; lefty protein; TGF-beta; sexual development; human; bone; pituitary; cartilage; osteoarthritis; osteoporosis; haematopoiesis; periodontal disease; wound healing; tissue repair; tumour; cancer; interstitial lung disease; autoimmunity; leukaemia; lymphoma; immunity; immunosuppression; inflammatory bowel disease; myelosuppression; infectious disease; patent; GENESEQ patentdb.

SOURCE Homo sapiens.

ORGANISM Homo sapiens.

REFERENCE 1 (bases 1 to 1688)

AUTHORS Ebner,R., Ruben,S.M., Soppet,D.R.

TITLE New isolate human Nodal and Lefty polypeptides

JOURNAL Patent: WO9909198-A1; Filing Date: 20-AUG-1998; 98WO-US17211; Publication Date: 25-FEB-1999; Priority: 21-AUG-1997; 97US-0056565; Assignee: (HUMA-) HUMAN GENOME SCI INC; Cross Reference: WPI; 1999-190173/16. P-PSDB; AAY03850; Patent Format: Claim 2; Fig 1B; 182pp; English.

COMMENT The present invention relates to novel human nodal and lefty proteins which are members of the TGF-beta family. The human nodal and lefty proteins may be involved in a developmental process such

as the correct formation of various structures or in one or more post-developmental capacities including sexual development, pituitary hormone production, and the creation of bone and cartilage. The Nodal and Lefty polypeptides are useful for enhancing or enriching the growth and/or differentiation of specific cell populations, eg. embryonic cells or stem cells. They can be used to treat such conditions as osteoarthritis, osteoporosis, and other abnormalities of bone, cartilage, muscle, tendon, ligament, and/or other connective tissues and/or organs such as liver, lung, cardiac, pancreas, and kidney. Compositions containing nodal and lefty proteins may be useful for growth formation, for treating periodontal disease and for modulating haematopoiesis, wound healing and tissue repair. They can also be used for the treatment of tumours, cancers, interstitial lung disease, and any dysregulation of the growth and differentiation patterns of cell function including autoimmunity, arthritis, leukaemia, lymphomas, immunosuppression, immunity, humoral immunity, inflammatory bowel disease, myelosuppression, or infectious diseases. The present sequence represents a DNA encoding a human lefty polypeptide. The cDNA encoding the lefty protein is deposited under the ATCC deposit No. 209091.

FEATURES                      Location/Qualifiers  
 CDS                              53..1153  
                                  /\*tag= a  
                                  /product= "lefty protein"  
 sig\_peptide                    53..106  
                                  /\*tag= b  
 mat\_peptide                    107..1150  
                                  /\*tag= c

BASE COUNT            315 a    514 c    525 g    334 t  
 ORIGIN

P\_ABQ55009    Human ovarian antigen HUKJ46 cDNA, SEQ ID NO:889. 616 bp,  
 cDNA, PAT 22-AUG-2002

ACCESSION    P\_ABQ55009

KEYWORDS    Human; ovarian antigen; ovary; ovarian; breast; cancer; tumour;  
 ovarian cancer; breast cancer; tumour; reproductive system disorder;  
 infertility; pregnancy disorder; anovulation; polycystic ovary  
 syndrome; PCOS; ovarian cyst; dysmenorrhoea; endocrine disorder;  
 infection; inflammatory condition; immune disorder; blood disorder;  
 cardiovascular disorder; respiratory disorder; neurological  
 disorder; gastrointestinal disorder; urinary system disorder; drug  
 screening; gene therapy; chromosome mapping; forensic analysis;  
 antibody preparation; cytostatic; immunomodulatory; neuroprotective;  
 antiinflammatory; gynaecological; reproductive; gene; patent;  
 GENESEQ patentdb.

SOURCE            Homo sapiens.

ORGANISM          Homo sapiens.

REFERENCE        1 (bases 1 to 1616)

AUTHORS          Birse,C.E.,    Rosen,C.A.

TITLE            Isolated nucleic acid molecules encoding novel ovarian polypeptides,  
 useful in the prevention, treatment and diagnosis of cancer (e.g.  
 ovarian cancer), immune disorders, cardiovascular disorders and  
 neurological diseases -

JOURNAL          Patent: WO200200677-A1; Filing Date: 07-JUN-2001; 2001WO-US18569;  
 Publication Date: 03-JAN-2002; Priority: 07-JUN-2000;  
 2000US-209467P; Assignee: (HUMA-) HUMAN GENOME SCI INC; Cross

Reference: WPI; 2002-147878/19. P-PSDB; ABP41932; Patent Format:  
Claim 1; SEQ ID No 889; 2922pp; English.

COMMENT

The invention relates to 2175 novel human ovarian antigens (ABP41054- ABP43228) and to cDNAs encoding them (ABQ54131-ABQ56305), and also encompasses polypeptides 90% identical and polynucleotides 95% identical to the sequences of the invention. The invention additionally relates to recombinant vectors and host cells comprising human ovarian antigen polynucleotides, antibodies against human ovarian antigens, and the use of ovarian antigen polynucleotides and polypeptides in diagnosing, treating, prognosing or preventing various ovary and/or breast-related disorders. Such conditions include ovarian cancer and breast cancer, and metastatic tumours of ovarian or breast origin, reproductive system disorders (e.g., infertility, disorders of pregnancy, anovulation, polycystic ovary syndrome, ovarian cysts, and dysmenorrhoea), endocrine disorders, infections (e.g., chlamydia, HIV, toxoplasmosis, and toxic shock syndrome), inflammatory conditions (e.g., mastitis, oophoritis and vaginitis), immune disorders (e.g., congenital and acquired immunodeficiencies, autoimmune oophoritis, systemic lupus erythematosus), blood-related disorders (e.g., anaemia), cardiovascular disorders, respiratory disorders, neurological disorders, gastrointestinal disorders and urinary system disorders. Ovarian antigen polypeptides and polynucleotides may also be used in screening for compounds which modulate ovarian antigen expression or activity. The polynucleotides may further be used for gene therapy, chromosome mapping, in the identification of individuals and in forensic analysis, and the polypeptides may be used as food additives or to prepare antibodies useful in disease diagnosis, drug targeting and phenotyping. The present sequence represents cDNA encoding a human ovarian antigen of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at [ftp.wipo.int/pub/published\\_pct\\_sequences](ftp.wipo.int/pub/published_pct_sequences).

FEATURES

Location/Qualifiers

BASE COUNT            295 a      492 c      504 g      318 t            7 others  
ORIGIN



Thu Oct 9 15:40:44 2003 [BLASTP 2.2.6 [Apr-09-2003], NCBI]

/home/glinda/vf/Legal/byeung/pl.DNA33461 (366 aa)

/home/glinda/vf/Legal/byeung/pl.DNA33461

Database: day (3,982,273 seqs, 1,083,533,665 aa) Oct 6, 2003 7:49 AM

Locus list: hum (822,338 seqs, 172,698,043 aa)

Matrix: BLOSUM62, T: 11, A: 40, X1: 16, X2: 38, X3: 64, S1: 41, S2: 76, eval: 10.

Gap Penalties: Existence: 11, Extension: 1

Sequences producing High-scoring Segment Pairs:					Score	Match	Pct	E-val
1	P_ABU54366	Human secreted/transmembrane protein PRO317	1928	366	100	0.0		
2	P_ABU64518	Human secreted/transmembrane protein, #22 -	1928	366	100	0.0		
3	P_ABU67364	Human secreted protein PRO317 - Homo sapien	1928	366	100	0.0		
4	P_ABU71910	Human secreted/transmembrane protein PRO317	1928	366	100	0.0		
5	P_ABU71464	Human PRO polypeptide #20 - Homo sapiens.	1928	366	100	0.0		
6	P_ABU69641	Novel human secreted and transmembrane prot	1928	366	100	0.0		
7	P_ABU71609	Human PRO polypeptide #20 - Homo sapiens.	1928	366	100	0.0		
8	P_ABO01793	Novel human secreted and transmembrane prot	1928	366	100	0.0		
9	P_ABO14823	Human secreted / transmembrane polypeptide	1928	366	100	0.0		
10	P_ABO17574	Human PRO polypeptide #20 - Homo sapiens.	1928	366	100	0.0		
11	P_ABO17513	Human PRO polypeptide #20 - Homo sapiens.	1928	366	100	0.0		
12	P_ABO14884	Human secreted / transmembrane polypeptide	1928	366	100	0.0		
13	P_ABG96362	Human ovarian cancer marker M457 - Homo sap	1928	366	100	0.0		
14	P_AAE28182	Human Lefty protein - Homo sapiens.	1928	366	100	0.0		
15	P_AAB80231	Human PRO317 protein - Homo sapiens.	1928	366	100	0.0		
16	P_AAB68600	PRO317 - Homo sapiens.	1928	366	100	0.0		
17	P_AAY88575	Human PRO317 amino acid sequence - Homo sap	1928	366	100	0.0		
18	P_AAY05287	EGF-like homologue EBAF-2 - Homo sapiens.	1928	366	100	0.0		
19	P_AAY03850	Human lefty protein - Homo sapiens.	1928	366	100	0.0		
20	P_AAY13363	protein PRO317 - Homo sapiens.	1928	366	100	0.0		
21	AAD48144	TGF-beta type secreted signaling protein LE	1928	366	100	0.0		
22	AAH27883	left-right determination, factor B /pid=AAH	1928	366	100	0.0		
23	AAC33967	signaling molecule LEFTY-B /pid=AAC33967.1	1928	366	100	0.0		
24	AAQ89232	LEFTB /pid=AAQ89232.1 - Homo sapiens	1928	366	100	0.0		
25	NP_066277	left-right determination, factor B prepropr	1928	366	100	0.0		
26	LFTB_HUMAN	Left-right determination factor b precursor	1928	366	100	0.0		
27	P_AAY17870	Human bone morphogenic protein BMP-17 - Hom	1920	365	100	0.0		
28	P_AAU79519	Human endometrial bleeding associated facto	1843	350	96	0.0		
29	P_AAB19837	Endometrial bleeding associated factor (eba	1843	350	96	0.0		
30	P_AAB95157	Human protein sequence SEQ ID NO:17194 - Ho	1843	350	96	0.0		
31	P_AAY17871	Human bone morphogenic protein BMP-18 - Hom	1843	350	96	0.0		
32	AAD48145	TGF-beta type secreted signaling protein LE	1843	350	96	0.0		
33	AAH35718	Unknown (protein for MGC:46222) /pid=AAH357	1843	350	96	0.0		
34	AAC32600	signaling molecule LEFTY-A /pid=AAC32600.1	1843	350	96	0.0		
35	NP_003231	endometrial bleeding associated factor prep	1843	350	96	0.0		
36	TGF4_HUMAN	Transforming growth factor beta 4 precursor	1843	350	96	0.0		
37	BAC11556	unnamed protein product /pid=BAC11556.1 - H	1838	349	95	0.0		
38	P_AAU79521	Human endometrial bleeding associated facto	1836	349	95	0.0		
39	P_AAU79520	Human endometrial bleeding associated facto	1829	348	95	0.0		
40	P_AAU77104	Human transforming growth factor beta 4 (TF	1755	337	92	0.0		
41	P_AAY92013	Human transforming growth factor beta 4/eba	1755	337	92	0.0		
42	AAB53269	endometrial bleeding associated factor /pid	1755	337	92	0.0		
43	P_AAU91323	Human novel secreted protein LP105 - Homo s	1673	320	92	0.0		
44	CAD29027	unnamed protein product /pid=CAD29027.1 - H	1673	320	92	0.0		
45	P_ABP41932	Human ovarian antigen HUKJ46, SEQ ID NO:30	1204	224	98	e-130		

>1 P\_ABU54366 Human secreted/transmembrane protein PRO317 - Homo sapiens. (366 aa) [1 seg]

Score = 1928 (747 bits), Expect = 0.0

Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

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DNA33461     61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
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P_ABU54366    61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461    121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
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P_ABU54366   121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461    181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
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P_ABU54366   181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461    241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
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P_ABU54366   241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP

DNA33461    301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV
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P_ABU54366   301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV

DNA33461    361 PRRLQP
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P_ABU54366   361 PRRLQP
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>2 P\_ABU64518 Human secreted/transmembrane protein, #22 - Homo sapiens. (366 aa) [1 seg]

Score = 1928 (747 bits), Expect = 0.0

Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

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P_ABU64518    1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ

DNA33461     61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
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P_ABU64518    61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461    121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
*****
P_ABU64518   121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461    181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
P_ABU64518   181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461    241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
*****
P_ABU64518   241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
```

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV  
 \*\*\*\*\*  
 P\_ABU64518 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV

DNA33461 361 PRRLQP  
 \*\*\*\*\*  
 P\_ABU64518 361 PRRLQP

>3 P\_ABU67364 Human secreted protein PRO317 - Homo sapiens. (366 aa) [1 seg]  
 Score = 1928 (747 bits), Expect = 0.0  
 Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 \*\*\*\*\*  
 P\_ABU67364 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ

DNA33461 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 \*\*\*\*\*  
 P\_ABU67364 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 \*\*\*\*\*  
 P\_ABU67364 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
 \*\*\*\*\*  
 P\_ABU67364 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 \*\*\*\*\*  
 P\_ABU67364 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV  
 \*\*\*\*\*  
 P\_ABU67364 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV

DNA33461 361 PRRLQP  
 \*\*\*\*\*  
 P\_ABU67364 361 PRRLQP

>4 P\_ABU71910 Human secreted/transmembrane protein PRO317 - Homo sapiens. (366  
 aa) [1 seg]  
 Score = 1928 (747 bits), Expect = 0.0  
 Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 \*\*\*\*\*  
 P\_ABU71910 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ

DNA33461 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 \*\*\*\*\*  
 P\_ABU71910 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 \*\*\*\*\*  
 P\_ABU71910 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRVFASQGAPAGLGEPQLELHTL  
 \*\*\*\*\*  
 P\_ABU71910 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRVFASQGAPAGLGEPQLELHTL  
 DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 \*\*\*\*\*  
 P\_ABU71910 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV  
 \*\*\*\*\*  
 P\_ABU71910 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV  
 DNA33461 361 PRRLQP  
 \*\*\*\*\*  
 P\_ABU71910 361 PRRLQP

>5 P\_ABU71464 Human PRO polypeptide #20 - Homo sapiens. (366 aa) [1 seg]  
 Score = 1928 (747 bits), Expect = 0.0  
 Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 \*\*\*\*\*  
 P\_ABU71464 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 DNA33461 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 \*\*\*\*\*  
 P\_ABU71464 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 \*\*\*\*\*  
 P\_ABU71464 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRVFASQGAPAGLGEPQLELHTL  
 \*\*\*\*\*  
 P\_ABU71464 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRVFASQGAPAGLGEPQLELHTL  
 DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 \*\*\*\*\*  
 P\_ABU71464 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV  
 \*\*\*\*\*  
 P\_ABU71464 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV  
 DNA33461 361 PRRLQP  
 \*\*\*\*\*  
 P\_ABU71464 361 PRRLQP

>6 P\_ABU69641 Novel human secreted and transmembrane protein PRO317 - Homo (366 aa) [1 seg]  
 Score = 1928 (747 bits), Expect = 0.0  
 Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 \*\*\*\*\*  
 P\_ABU69641 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ

DNA33461 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 \*\*\*\*\*  
 P\_ABU69641 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 \*\*\*\*\*  
 P\_ABU69641 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
 \*\*\*\*\*  
 P\_ABU69641 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 \*\*\*\*\*  
 P\_ABU69641 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV  
 \*\*\*\*\*  
 P\_ABU69641 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV

DNA33461 361 PRRLQP  
 \*\*\*\*\*  
 P\_ABU69641 361 PRRLQP

>7 P\_ABU71609 Human PRO polypeptide #20 - Homo sapiens. (366 aa) [1 seg]  
 Score = 1928 (747 bits), Expect = 0.0  
 Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 \*\*\*\*\*  
 P\_ABU71609 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ

DNA33461 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 \*\*\*\*\*  
 P\_ABU71609 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 \*\*\*\*\*  
 P\_ABU71609 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
 \*\*\*\*\*  
 P\_ABU71609 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 \*\*\*\*\*  
 P\_ABU71609 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV  
 \*\*\*\*\*  
 P\_ABU71609 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV

DNA33461 361 PRRLQP  
 \*\*\*\*\*  
 P\_ABU71609 361 PRRLQP

>8 P\_ABO01793 Novel human secreted and transmembrane protein PRO317 - Homo (366 aa) [1 seg]  
 Score = 1928 (747 bits), Expect = 0.0  
 Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461	1	MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ *****
P_ABO01793	1	MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
DNA33461	61	YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL *****
P_ABO01793	61	YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
DNA33461	121	FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV *****
P_ABO01793	121	FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
DNA33461	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL *****
P_ABO01793	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
DNA33461	241	DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP *****
P_ABO01793	241	DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
DNA33461	301	PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKSCASDGALV *****
P_ABO01793	301	PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKSCASDGALV
DNA33461	361	PRRLQP *****
P_ABO01793	361	PRRLQP

>9 P\_ABO14823 Human secreted / transmembrane polypeptide PRO317 - Homo (366 aa) [1 seg]  
 Score = 1928 (747 bits), Expect = 0.0  
 Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461	1	MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ *****
P_ABO14823	1	MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
DNA33461	61	YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL *****
P_ABO14823	61	YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
DNA33461	121	FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV *****
P_ABO14823	121	FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
DNA33461	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL *****
P_ABO14823	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
DNA33461	241	DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP *****
P_ABO14823	241	DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKCSCASDGALV  
 \*\*\*\*\*  
 P\_ABO14823 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKCSCASDGALV  
 DNA33461 361 PRRLQP  
 \*\*\*\*\*  
 P\_ABO14823 361 PRRLQP

>10 P\_ABO17574 Human PRO polypeptide #20 - Homo sapiens. (366 aa) [1 seg]  
 Score = 1928 (747 bits), Expect = 0.0  
 Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 \*\*\*\*\*  
 P\_ABO17574 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 DNA33461 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 \*\*\*\*\*  
 P\_ABO17574 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 \*\*\*\*\*  
 P\_ABO17574 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
 \*\*\*\*\*  
 P\_ABO17574 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
 DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 \*\*\*\*\*  
 P\_ABO17574 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKCSCASDGALV  
 \*\*\*\*\*  
 P\_ABO17574 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKCSCASDGALV  
 DNA33461 361 PRRLQP  
 \*\*\*\*\*  
 P\_ABO17574 361 PRRLQP

>11 P\_ABO17513 Human PRO polypeptide #20 - Homo sapiens. (366 aa) [1 seg]  
 Score = 1928 (747 bits), Expect = 0.0  
 Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 \*\*\*\*\*  
 P\_ABO17513 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 DNA33461 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 \*\*\*\*\*  
 P\_ABO17513 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 \*\*\*\*\*  
 P\_ABO17513 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

```

DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
P_ABO17513 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
*****
P_ABO17513 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV
*****
P_ABO17513 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV

DNA33461 361 PRRLQP
*****
P_ABO17513 361 PRRLQP

```

>12 P\_ABO14884 Human secreted / transmembrane polypeptide PRO317 - Homo (366 aa) [1 seg]

Score = 1928 (747 bits), Expect = 0.0

Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

```

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
*****
P_ABO14884 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ

DNA33461 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
*****
P_ABO14884 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
*****
P_ABO14884 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
P_ABO14884 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
*****
P_ABO14884 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV
*****
P_ABO14884 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV

DNA33461 361 PRRLQP
*****
P_ABO14884 361 PRRLQP

```

>13 P\_ABG96362 Human ovarian cancer marker M457 - Homo sapiens. (366 aa) [1 seg]

Score = 1928 (747 bits), Expect = 0.0

Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

```

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
*****
P_ABG96362 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ

```



```

DNA33461      61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
*****
P_ABG96362    61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461     121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
*****
P_ABG96362    121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461     181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
P_ABG96362    181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461     241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
*****
P_ABG96362    241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP

DNA33461     301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV
*****
P_ABG96362    301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV

DNA33461     361 PRRLQP
*****
P_ABG96362    361 PRRLQP

```

>14 P\_AAE28182 Human Lefty protein - Homo sapiens. (366 aa) [1 seg]  
Score = 1928 (747 bits), Expect = 0.0  
Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

```

DNA33461      1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
*****
P_AAE28182     1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ

DNA33461     61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
*****
P_AAE28182    61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461     121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
*****
P_AAE28182    121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461     181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
P_AAE28182    181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461     241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
*****
P_AAE28182    241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP

DNA33461     301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV
*****
P_AAE28182    301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV

DNA33461     361 PRRLQP
*****
P_AAE28182    361 PRRLQP

```

>15 P\_AAB80231 Human PRO317 protein - Homo sapiens. (366 aa) [1 seg]

Score = 1928 (747 bits), Expect = 0.0  
Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

```
DNA33461      1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
*****
P_AAB80231    1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ

DNA33461     61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
*****
P_AAB80231    61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461    121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
*****
P_AAB80231    121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461    181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
P_AAB80231    181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461    241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
*****
P_AAB80231    241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP

DNA33461    301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV
*****
P_AAB80231    301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV

DNA33461    361 PRRLQP
*****
P_AAB80231    361 PRRLQP
```

>16 P\_AAB68600 PRO317 - Homo sapiens. (366 aa) [1 seg]

Score = 1928 (747 bits), Expect = 0.0  
Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

```
DNA33461      1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
*****
P_AAB68600    1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ

DNA33461     61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
*****
P_AAB68600    61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461    121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
*****
P_AAB68600    121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461    181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
P_AAB68600    181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461    241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
*****
P_AAB68600    241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP

DNA33461    301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV
*****
```

P\_AAB68600 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASD GALV

DNA33461 361 PRRLQP  
\*\*\*\*\*

P\_AAB68600 361 PRRLQP

>17 P\_AAY88575 Human PRO317 amino acid sequence - Homo sapiens. (366 aa) [1 seg]

Score = 1928 (747 bits), Expect = 0.0

Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
\*\*\*\*\*

P\_AAY88575 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ

DNA33461 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
\*\*\*\*\*

P\_AAY88575 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
\*\*\*\*\*

P\_AAY88575 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
\*\*\*\*\*

P\_AAY88575 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTGRQP  
\*\*\*\*\*

P\_AAY88575 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTGRQP

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASD GALV  
\*\*\*\*\*

P\_AAY88575 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASD GALV

DNA33461 361 PRRLQP  
\*\*\*\*\*

P\_AAY88575 361 PRRLQP

>18 P\_AAY05287 EGF-like homologue EBAF-2 - Homo sapiens. (366 aa) [1 seg]

Score = 1928 (747 bits), Expect = 0.0

Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
\*\*\*\*\*

P\_AAY05287 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ

DNA33461 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
\*\*\*\*\*

P\_AAY05287 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
\*\*\*\*\*

P\_AAY05287 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
\*\*\*\*\*

P\_AAY05287 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 \*\*\*\*\*  
 P\_AAY05287 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKSCASDGALV  
 \*\*\*\*\*  
 P\_AAY05287 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKSCASDGALV  
 DNA33461 361 PRRLQP  
 \*\*\*\*\*  
 P\_AAY05287 361 PRRLQP

>19 P\_AAY03850 Human lefty protein - Homo sapiens. (366 aa) [1 seg]  
 Score = 1928 (747 bits), Expect = 0.0  
 Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 \*\*\*\*\*  
 P\_AAY03850 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 DNA33461 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 \*\*\*\*\*  
 P\_AAY03850 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 \*\*\*\*\*  
 P\_AAY03850 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 DNA33461 181 TEAVNFWQQLSRPQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
 \*\*\*\*\*  
 P\_AAY03850 181 TEAVNFWQQLSRPQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
 DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 \*\*\*\*\*  
 P\_AAY03850 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKSCASDGALV  
 \*\*\*\*\*  
 P\_AAY03850 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKSCASDGALV  
 DNA33461 361 PRRLQP  
 \*\*\*\*\*  
 P\_AAY03850 361 PRRLQP

>20 P\_AAY13363 protein PRO317 - Homo sapiens. (366 aa) [1 seg]  
 Score = 1928 (747 bits), Expect = 0.0  
 Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 \*\*\*\*\*  
 P\_AAY13363 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 DNA33461 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 \*\*\*\*\*  
 P\_AAY13363 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

```

DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
*****
P_AAY13363 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
P_AAY13363 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
*****
P_AAY13363 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV
*****
P_AAY13363 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV

DNA33461 361 PRRLQP
*****
P_AAY13363 361 PRRLQP

```

>21 AAD48144 TGF-beta type secreted signaling protein LEFTYB /pid=AAD48144.1 - Homo sapiens (366 aa) [1 seg]  
Score = 1928 (747 bits), Expect = 0.0  
Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

```

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
*****
AAD48144 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ

DNA33461 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
*****
AAD48144 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
*****
AAD48144 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
AAD48144 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
*****
AAD48144 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV
*****
AAD48144 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV

DNA33461 361 PRRLQP
*****
AAD48144 361 PRRLQP

```

>22 AAH27883 left-right determination, factor.B /pid=AAH27883.1 - Homo sapiens (366 aa) [1 seg]  
Score = 1928 (747 bits), Expect = 0.0  
Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461	1	MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ *****
AAH27883	1	MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
DNA33461	61	YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL *****
AAH27883	61	YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
DNA33461	121	FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV *****
AAH27883	121	FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
DNA33461	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL *****
AAH27883	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
DNA33461	241	DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP *****
AAH27883	241	DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
DNA33461	301	PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKSCASDGALV *****
AAH27883	301	PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKSCASDGALV
DNA33461	361	PRRLQP *****
AAH27883	361	PRRLQP

>23 AAC33967 signaling molecule LEFTY-B /pid=AAC33967.1 - Homo sapiens (366 aa)  
[1 seg]  
Score = 1928 (747 bits), Expect = 0.0  
Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461	1	MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ *****
AAC33967	1	MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
DNA33461	61	YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL *****
AAC33967	61	YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
DNA33461	121	FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV *****
AAC33967	121	FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
DNA33461	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL *****
AAC33967	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
DNA33461	241	DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP *****
AAC33967	241	DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
DNA33461	301	PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKSCASDGALV *****
AAC33967	301	PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKSCASDGALV

DNA33461 361 PRRLQP  
\*\*\*\*\*  
AAC33967 361 PRRLQP

>24 AAQ89232 LEFTB /pid=AAQ89232.1 - Homo sapiens (366 aa) [1 seg]  
Score = 1928 (747 bits), Expect = 0.0  
Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
\*\*\*\*\*  
AAQ89232 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
  
DNA33461 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
\*\*\*\*\*  
AAQ89232 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
  
DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
\*\*\*\*\*  
AAQ89232 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
  
DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
\*\*\*\*\*  
AAQ89232 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
  
DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
\*\*\*\*\*  
AAQ89232 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
  
DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV  
\*\*\*\*\*  
AAQ89232 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV  
  
DNA33461 361 PRRLQP  
\*\*\*\*\*  
AAQ89232 361 PRRLQP

>25 NP\_066277 left-right determination, factor B preproprotein /pid=NP\_066277.1  
- Homo sapiens (366 aa) [1 seg]  
Score = 1928 (747 bits), Expect = 0.0  
Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
\*\*\*\*\*  
NP\_066277 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
  
DNA33461 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
\*\*\*\*\*  
NP\_066277 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
  
DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
\*\*\*\*\*  
NP\_066277 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
  
DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
\*\*\*\*\*  
NP\_066277 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 \*\*\*\*\*  
 NP\_066277 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV  
 \*\*\*\*\*  
 NP\_066277 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV  
 DNA33461 361 PRRLQP  
 \*\*\*\*\*  
 NP\_066277 361 PRRLQP

>26 LFTB\_HUMAN Left-right determination factor b precursor /pid=AAC33967.1 -  
 homo sapiens (366 aa) [1 seg]  
 Score = 1928 (747 bits), Expect = 0.0  
 Identities = 366/366 (100%), Positives = 366/366 (100%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 \*\*\*\*\*  
 LFTB\_HUMAN 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 DNA33461 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 \*\*\*\*\*  
 LFTB\_HUMAN 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 \*\*\*\*\*  
 LFTB\_HUMAN 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
 \*\*\*\*\*  
 LFTB\_HUMAN 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
 DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 \*\*\*\*\*  
 LFTB\_HUMAN 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV  
 \*\*\*\*\*  
 LFTB\_HUMAN 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV  
 DNA33461 361 PRRLQP  
 \*\*\*\*\*  
 LFTB\_HUMAN 361 PRRLQP

>27 P\_AAY17870 Human bone morphogenic protein BMP-17 - Homo sapiens. (366 aa) [1  
 seg]  
 Score = 1920 (744 bits), Expect = 0.0  
 Identities = 365/366 (99%), Positives = 365/366 (99%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 \*\*\*\*\*  
 P\_AAY17870 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 DNA33461 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 \*\*\*\*\*



P\_AAY17870 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
\*\*\*\*\*

P\_AAY17870 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
\*\*\*\*\*

P\_AAY17870 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
\*\*\*\*\*

P\_AAY17870 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV  
\*\*\*\*\*

P\_AAY17870 301 PEALAFKWPFLGPRQCIASETASLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV

DNA33461 361 PRRLQP  
\*\*\*\*\*

P\_AAY17870 361 PRRLQP

>28 P\_AAU79519 Human endometrial bleeding associated factor (ebaf) - Homo (366 aa) [1 seg]

Score = 1843 (714 bits), Expect = 0.0

Identities = 350/366 (95%), Positives = 355/366 (96%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPHTVRAQ  
\* \*\*\*\*\*

P\_AAU79519 1 MWPLWLCWALWVLPLAGPGAALTEEQLLGSLLRQLQLSEVPVLD RADMEKLVI PAHVRAQ

DNA33461 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
\*\* \*\* \*\*\*\*\*

P\_AAU79519 61 YVLLRRSHGDRSRGKRFSQSFREVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
\*\*\*\*\*

P\_AAU79519 121 FQEPVPKAALHRHGRLSPRSAQARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
\*\*\*\*\*

P\_AAU79519 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
\*\* \*\*\*\*\*

P\_AAU79519 241 DLRDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCQQP

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV  
\*\*\*\*\*

P\_AAU79519 301 PEALAFNWPFLGPRQCIASETASLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV

DNA33461 361 PRRLQP  
\*\*\*\*\*

P\_AAU79519 361 PRRLQP

>29 P\_AAB19837 Endometrial bleeding associated factor (ebaf) protein - Homo (366 aa) [1 seg]

Score = 1843 (714 bits), Expect = 0.0

Identities = 350/366 (95%), Positives = 355/366 (96%), at 1,1-366,366

```
DNA33461      1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
* ****
P_AAB19837    1 MWPLWLCWALWVLPLAGPGAALTEEQLLGSLLRQLQLSEVPVLDRADMEKLVI PAHVRAQ

DNA33461     61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
** **
P_AAB19837    61 YVLLRRSHGDRSRGKRFSQSFRVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461    121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
*****
P_AAB19837   121 FQEPVPKAALHRHGRLSPRSAQARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461    181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
P_AAB19837   181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461    241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
**
P_AAB19837   241 DLRDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCQPP

DNA33461    301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV
*****
P_AAB19837   301 PEALAFNWPFLGPRQCIASETASLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV

DNA33461    361 PRRLQP
*****
P_AAB19837   361 PRRLQP
```

>30 P\_AAB95157 Human protein sequence SEQ ID NO:17194 - Homo sapiens.. (366 aa)  
[1 seg]

Score = 1843 (714 bits), Expect = 0.0

Identities = 350/366 (95%), Positives = 355/366 (96%), at 1,1-366,366

```
DNA33461      1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
* ****
P_AAB95157    1 MWPLWLCWALWVLPLAGPGAALTEEQLLGSLLRQLQLSEVPVLDRADMEKLVI PAHVRAQ

DNA33461     61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
** **
P_AAB95157    61 YVLLRRSHGDRSRGKRFSQSFRVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461    121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
*****
P_AAB95157   121 FQEPVPKAALHRHGRLSPRSAQARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461    181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
P_AAB95157   181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461    241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
**
P_AAB95157   241 DLRDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCQPP

DNA33461    301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV
```

```

*****
P_AAB95157 301 PEALAFNWPFLGPRQCIASETASLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV
DNA33461 361 PRRLQP
*****
P_AAB95157 361 PRRLQP

```

>31 P\_AAY17871 Human bone morphogenic protein BMP-18 - Homo sapiens. (366 aa) [1 seg]

Score = 1843 (714 bits), Expect = 0.0

Identities = 350/366 (95%), Positives = 355/366 (96%), at 1,1-366,366

```

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
* *****
P_AAY17871 1 MWPLWLCWALWVLPLAGPGAALTEEQLLGSLLRQLQLSEVPVLDRADMEKLVI PAHVRAQ

DNA33461 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
** ** *****
P_AAY17871 61 YVLLRRSHGDRSRGKRFSQSFRVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
*****
P_AAY17871 121 FQEPVPKAALHRHGRLSPRSAQARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
P_AAY17871 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
** *****
P_AAY17871 241 DLRDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAKNWVLEPPGFLAYECVGTCQQP

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV
*****
P_AAY17871 301 PEALAFNWPFLGPRQCIASETASLPMIVSIKEGGRTRPQVVSLPNMRVQKCSCASDGALV

DNA33461 361 PRRLQP
*****
P_AAY17871 361 PRRLQP

```

>32 AAD48145 TGF-beta type secreted signaling protein LEFTYA /pid=AAD48145.1 - Homo sapiens (366 aa) [1 seg]

Score = 1843 (714 bits), Expect = 0.0

Identities = 350/366 (95%), Positives = 355/366 (96%), at 1,1-366,366

```

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
* *****
AAD48145 1 MWPLWLCWALWVLPLAGPGAALTEEQLLGSLLRQLQLSEVPVLDRADMEKLVI PAHVRAQ

DNA33461 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
** ** *****
AAD48145 61 YVLLRRSHGDRSRGKRFSQSFRVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
*****
AAD48145 121 FQEPVPKAALHRHGRLSPRSAQARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

```

DNA33461	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
		*****
AAD48145	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
DNA33461	241	DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
		** *****
AAD48145	241	DLRDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCQPP
DNA33461	301	PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGLV
		*****
AAD48145	301	PEALAFNWPFLGPRQCIASETASLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGLV
DNA33461	361	PRRLQP
		*****
AAD48145	361	PRRLQP

>33 AAH35718 Unknown (protein for MGC:46222) /pid=AAH35718.1 - Homo sapiens (366 aa) [1 seg]

Score = 1843 (714 bits), Expect = 0.0

Identities = 350/366 (95%), Positives = 355/366 (96%), at 1,1-366,366

DNA33461	1	MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
		* *****
AAH35718	1	MWPLWLCWALWVLPLAGPGAALTEEQLLGSLLRQLQLSEVPVLDRADMEKLVI PAHVRAQ
DNA33461	61	YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
		** ** *
AAH35718	61	YVLLRRSHGDRSRGKRFSQSFREVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL
DNA33461	121	FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
		*****
AAH35718	121	FQEPVPKAALHRHGRLSPRSAQARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
DNA33461	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
		*****
AAH35718	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
DNA33461	241	DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
		** *****
AAH35718	241	DLRDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCQPP
DNA33461	301	PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGLV
		*****
AAH35718	301	PEALAFNWPFLGPRQCIASETASLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGLV
DNA33461	361	PRRLQP
		*****
AAH35718	361	PRRLQP

>34 AAC32600 signaling molecule LEFTY-A /pid=AAC32600.1 - Homo sapiens (366 aa) [1 seg]

Score = 1843 (714 bits), Expect = 0.0

Identities = 350/366 (95%), Positives = 355/366 (96%), at 1,1-366,366

DNA33461	1	MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
		* *****
AAC32600	1	MWPLWLCWALWVLPLAGPGAALTEEQLLGSLLRQLQLSEVPVLDRADMEKLVI PAHVRAQ

DNA33461	61	YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
		** ** *
AAC32600	61	YVLLRRSHGDRSRGKRFSQSFREVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL
DNA33461	121	FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
		*****
AAC32600	121	FQEPVPKAALHRHGRLSPRSAQARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
DNA33461	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
		*****
AAC32600	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
DNA33461	241	DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
		** *****
AAC32600	241	DLRDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCQQP
DNA33461	301	PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVS LPMNRVQKSCASDGALV
		*****
AAC32600	301	PEALAFNWPFLGPRQCIASETASLPMIVSIKEGGRTRPQVVS LPMNRVQKSCASDGALV
DNA33461	361	PRRLQP
		*****
AAC32600	361	PRRLQP

>35 NP\_003231 endometrial bleeding associated factor preproprotein  
/pid=NP\_003231.2 - Homo sapiens (366 aa) [1 seg]  
Score = 1843 (714 bits), Expect = 0.0  
Identities = 350/366 (95%), Positives = 355/366 (96%), at 1,1-366,366

DNA33461	1	MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
		* *****
NP_003231	1	MWPLWLCWALWVLPLAGPGAALTEEQLLGSLLRQLQLSEVPVLDRADMEKLVIPAHVRAQ
DNA33461	61	YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
		** ** *
NP_003231	61	YVLLRRSHGDRSRGKRFSQSFREVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL
DNA33461	121	FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
		*****
NP_003231	121	FQEPVPKAALHRHGRLSPRSAQARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
DNA33461	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
		*****
NP_003231	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
DNA33461	241	DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
		** *****
NP_003231	241	DLRDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCQQP
DNA33461	301	PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVS LPMNRVQKSCASDGALV
		*****
NP_003231	301	PEALAFNWPFLGPRQCIASETASLPMIVSIKEGGRTRPQVVS LPMNRVQKSCASDGALV
DNA33461	361	PRRLQP
		*****
NP_003231	361	PRRLQP

>36 TGF4\_HUMAN Transforming growth factor beta 4 precursor /pid=AAB53269.1 - homo sapiens (366 aa) [1 seg]  
 Score = 1843 (714 bits), Expect = 0.0  
 Identities = 350/366 (95%), Positives = 355/366 (96%), at 1,1-366,366

DNA33461	1	MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ * *****
TGF4_HUMAN	1	MWPLWLCWALWVLPLAGPGAALTEEQLLGSLLRQLQLSEVPVLDRADMEKLVI PAHVRAQ
DNA33461	61	YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL ** ** *****
TGF4_HUMAN	61	YVLLRRSHGDRSRGKRFSQSFREVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL
DNA33461	121	FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV *****
TGF4_HUMAN	121	FQEPVPKAALHRHGRLSPRSAQARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
DNA33461	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL *****
TGF4_HUMAN	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
DNA33461	241	DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP ** *****
TGF4_HUMAN	241	DLRDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAKNWVLEPPGFLAYECVGTCQP
DNA33461	301	PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVS LPNMRVQKCSASDGALV *****
TGF4_HUMAN	301	PEALAFNWPFLGPRQCIASETASLPMIVSIKEGGRTRPQVVS LPNMRVQKCSASDGALV
DNA33461	361	PRRLQP *****
TGF4_HUMAN	361	PRRLQP

>37 BAC11556 unnamed protein product /pid=BAC11556.1 - Homo sapiens (366 aa) [1 seg]  
 Score = 1838 (712 bits), Expect = 0.0  
 Identities = 349/366 (95%), Positives = 354/366 (96%), at 1,1-366,366

DNA33461	1	MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ * *****
BAC11556	1	MWPLWLCWALWVLPLAGPGAALTEEQLLGSLLRQLQLSEVPVLDRADMEKLVI PAHVRAQ
DNA33461	61	YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL ** ** *****
BAC11556	61	YVLLRRSHGDRSRGKRFSQSFREVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL
DNA33461	121	FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV *****
BAC11556	121	FQEPVPKAALHRHGRLSPRSAQARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
DNA33461	181	TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL ** *****
BAC11556	181	TEPVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
DNA33461	241	DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP ** *****

BAC11556 241 DLRDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAKNWWLEPPGFLAYECVGTCQQP

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKCSCASDGALV  
 \*\*\*\*\*

BAC11556 301 PEALAFNWPFLGPRQCIASETASLPMIVSIKEGGTRTPQVVSLPNMRVQKCSCASDGALV

DNA33461 361 PRRLQP  
 \*\*\*\*\*

BAC11556 361 PRRLQP

>38 P\_AAU79521 Human endometrial bleeding associated factor (ebaf) mutant R132G  
 - Homo sapiens. Synthetic. (366 aa) [1 seg]  
 Score = 1836 (711 bits), Expect = 0.0  
 Identities = 349/366 (95%), Positives = 354/366 (96%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 \* \*\*\*\*\*

P\_AAU79521 1 MWPLWLCWALWVLPLAGPGAALTEEQLLGSLLRQLQLSEVPVLDRADMEKLVI PAHVRAQ

DNA33461 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 \*\* \*\* \*\*\*\*\*

P\_AAU79521 61 YVLLRRSHGDRSRGKRFSQSFREVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 \*\*\*\*\*

P\_AAU79521 121 FQEPVPKAALHGHGRLSPRSAQARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
 \*\*\*\*\*

P\_AAU79521 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWWLEPPGFLAYECVGTCRQP  
 \*\* \*\*\*\*\*

P\_AAU79521 241 DLRDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAKNWWLEPPGFLAYECVGTCQQP

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRTPQVVSLPNMRVQKCSCASDGALV  
 \*\*\*\*\*

P\_AAU79521 301 PEALAFNWPFLGPRQCIASETASLPMIVSIKEGGTRTPQVVSLPNMRVQKCSCASDGALV

DNA33461 361 PRRLQP  
 \*\*\*\*\*

P\_AAU79521 361 PRRLQP

>39 P\_AAU79520 Human endometrial bleeding associated factor (ebaf) mutant  
 R74G/R77G - Homo sapiens. Synthetic. (366 aa) [1 seg]  
 Score = 1829 (709 bits), Expect = 0.0  
 Identities = 348/366 (95%), Positives = 353/366 (96%), at 1,1-366,366

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 \* \*\*\*\*\*

P\_AAU79520 1 MWPLWLCWALWVLPLAGPGAALTEEQLLGSLLRQLQLSEVPVLDRADMEKLVI PAHVRAQ

DNA33461 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 \*\* \*\* \*\*\*\*\*

P\_AAU79520 61 YVLLRRSHGDRSGGKGFSSQSFREVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV

```

*****
P_AAU79520 121 FQEPVPKAALHRHGRLSPRSAQARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
P_AAU79520 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
** *****
P_AAU79520 241 DLRDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAKNWVLEPPGFLAYECVGTCQQP
DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV
*****
P_AAU79520 301 PEALAFNWPFLGPRQCIASETASLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV
DNA33461 361 PRRLQP
*****
P_AAU79520 361 PRRLQP

```

>40 P\_AAU77104 Human transforming growth factor beta 4 (TFG-beta-4) polypeptide  
- Homo sapiens. (370 aa) [1 seg]  
Score = 1755 (680 bits), Expect = 0.0.  
Identities = 337/365 (92%), Positives = 346/365 (94%), Gaps = 2/365 (0%), at  
1,1-365,363

```

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ
* *****
P_AAU77104 1 MWPLWLCWALWVLPLAGPGAALTEEQLLASLLRQLQLSEVPVLDRADMEKLVIPAHVRAQ
DNA33461 61 YVALLQRSHGDRSRGKRFSQSFRVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
** * * * *****
P_AAU77104 61 YVLLLRD-GDRSRGKRFSQSFRVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL
DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
*****
P_AAU77104 120 FQEPVPQALHRHGRLSPAAPKARVTVEWL-VRDDGSNRTSLIDSRLVSVHESGWKAFDV
DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
P_AAU77104 179 TEAVNFWQQLSRPPEPLLVQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
** *****
P_AAU77104 239 DLRDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAKNWVLEPPGFLAYECVGTCQQP
DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV
*****
P_AAU77104 299 PEALAFNWPFLGPRQCIASETASLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALV
DNA33461 361 PRRLQ
*****
P_AAU77104 359 PRRLQ

```

>41 P\_AAY92013 Human transforming growth factor beta 4/ebaf monomer - Homo (370  
aa) [1 seg]  
Score = 1755 (680 bits), Expect = 0.0



Identities = 337/365 (92%), Positives = 346/365 (94%), Gaps = 2/365 (0%), at 1,1-365,363

```
DNA33461      1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLRQLQLKEVPTLDRADMEELVIPTHVRAQ
* ****
P_AAY92013    1 MWPLWLCWALWVLPLAGPGAALTEEQLLASLLRQLQLSEVPVLDRADMEKLVI PAHVRAQ

DNA33461     61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
** * * *
P_AAY92013    61 YVLLRRD-GDRSRGKRFSQSFREVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461    121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
*****
P_AAY92013   120 FQEPVPQALHRHGRLSPAAPKARVTVEWL-VRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461    181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
P_AAY92013   179 TEAVNFWQQLSRPPEPLLVQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461    241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
**
P_AAY92013   239 DLRDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCQP

DNA33461    301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVS LPNMRVQKSCASD GALV
*****
P_AAY92013   299 PEALAFNWPFLGPRQCIASETASLPMIVSIKEGGRTRPQVVS LPNMRVQKSCASD GALV

DNA33461    361 PRRLQ
*****
P_AAY92013   359 PRRLQ
```

>42 AAB53269 endometrial bleeding associated factor /pid=AAB53269.1 - Homo (370 aa) [1 seg]

Score = 1755 (680 bits), Expect = 0.0

Identities = 337/365 (92%), Positives = 346/365 (94%), Gaps = 2/365 (0%), at 1,1-365,363

```
DNA33461      1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLRQLQLKEVPTLDRADMEELVIPTHVRAQ
* ****
AAB53269      1 MWPLWLCWALWVLPLAGPGAALTEEQLLASLLRQLQLSEVPVLDRADMEKLVI PAHVRAQ

DNA33461     61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL
** * * *
AAB53269     61 YVLLRRD-GDRSRGKRFSQSFREVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL

DNA33461    121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV
*****
AAB53269    120 FQEPVPQALHRHGRLSPAAPKARVTVEWL-VRDDGSNRTSLIDSRLVSVHESGWKAFDV

DNA33461    181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL
*****
AAB53269    179 TEAVNFWQQLSRPPEPLLVQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461    241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP
**
AAB53269    239 DLRDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCQP
```

DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASD GALV  
 \*\*\*\*\*  
 AAB53269 299 PEALAFNWPFLGPRQCIASETASLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASD GALV  
 DNA33461 361 PRRLQ  
 \*\*\*\*\*  
 AAB53269 359 PRRLQ

>43 P\_AAU91323 Human novel secreted protein LP105 - Homo sapiens. (376 aa) [1 seg]

Score = 1673 (649 bits), Expect = 0.0

Identities = 320/348 (91%), Positives = 328/348 (94%), at 1,1-348,348

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 \* \* \* \* \*  
 P\_AAU91323 1 MWPPWLCWALWVLPLAGPGAALTEEQLLGSLLRQLQLSEVPVLDRADMEKLVI PAHVRAQ  
 DNA33461 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 \*\* \* \* \* \*  
 P\_AAU91323 61 YVLLRRSHGDRSRGKRFSQSFREVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL  
 DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 \* \* \* \* \*  
 P\_AAU91323 121 FQEPVPKAALHRHGRLSPRSAQARVAVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
 \* \* \* \* \*  
 P\_AAU91323 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
 DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 \*\* \* \* \* \*  
 P\_AAU91323 241 DLRDYGAQGDCDPEAPVTEGTCCCHQEMYTDLQGMKWAKNWMPEPLGFLAYKCVGTCQQP  
 DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRV  
 \*\*\*\*\*  
 P\_AAU91323 301 LEALAFNWPFLGPRHRCIASETASLPMIVSIKEGGRTRPQVVSLPNMRV

>44 CAD29027 unnamed protein product /pid=CAD29027.1 - Homo sapiens (376 aa) [1 seg]

Score = 1673 (649 bits), Expect = 0.0

Identities = 320/348 (91%), Positives = 328/348 (94%), at 1,1-348,348

DNA33461 1 MQPLWLCWALWVLPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQ  
 \* \* \* \* \*  
 CAD29027 1 MWPPWLCWALWVLPLAGPGAALTEEQLLGSLLRQLQLSEVPVLDRADMEKLVI PAHVRAQ  
 DNA33461 61 YVALLQRSHGDRSRGKRFSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRL  
 \*\* \* \* \* \*  
 CAD29027 61 YVLLRRSHGDRSRGKRFSQSFREVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRL  
 DNA33461 121 FQEPVPKAALHRHGRLSPRSARARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 \* \* \* \* \*  
 CAD29027 121 FQEPVPKAALHRHGRLSPRSAQARVAVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDV  
 DNA33461 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL  
 \* \* \* \* \*  
 CAD29027 181 TEAVNFWQQLSRPRQPLLLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTL

DNA33461 241 DLGDYGAQGDCDPEAPMTEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQP  
 \*\* \*\*\*\*\* \*\* \*\* \*\* \*\*  
 CAD29027 241 DLRDYGAQGDCDPEAPVTEGTCCCHQEMYTDLQGMKWAKNWMPEPLGFLAYKCVGTCQQP  
 DNA33461 301 PEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGRTRPQVVSLPNMRV  
 \*\*\*\*\*  
 CAD29027 301 LEALAFNWPFLGPRHCIASLPMIVSIKEGGRTRPQVVSLPNMRV

>45 P\_ABP41932 Human ovarian antigen HUKEJ46, SEQ ID NO:3064 - Homo sapiens.  
 (308 aa) [1 seg]  
 Score = 1204 (468 bits), Expect = e-130  
 Identities = 224/229 (97%), Positives = 225/229 (98%), at 138,80-366,308

DNA33461 138 PRSARARVTVEWLRVRDDGSNRTSLIDSRVSVHESGWKAFDVTEAVNFWQQLSRPRQPL  
 \*\* \*\*\*\*\* \*\* \*\* \*\*  
 P\_ABP41932 80 PRAARARVXVEWLRVRDDGXRTSXIDSRLVSVHESGWKAFDVTEAVNFWQQLSRPRQPL  
 DNA33461 198 LLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTLDLGDYGAQGDCDPEAPM  
 \*\*\*\*\*  
 P\_ABP41932 140 LLQVSVQREHLGPLASGAHKLVRFASQGAPAGLGEPQLELHTLDLGDYGAQGDCDPEAPM  
 DNA33461 258 TEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQPPEALAFKWPFLGPRQCI  
 \*\*\*\*\*  
 P\_ABP41932 200 TEGTRCCRQEMYIDLQGMKWAENWVLEPPGFLAYECVGTCRQPPEALAFKWPFLGPRQCI  
 DNA33461 318 ASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALVPRRLQP  
 \*\*\*\*\*  
 P\_ABP41932 260 ASETDSLPMIVSIKEGGRTRPQVVSLPNMRVQKSCASDGALVPRRLQP

Dayhoff Protein Database (Rel 77, Jul 2003)

P\_ABU54366 Human secreted/transmembrane protein PRO317 - Homo sapiens.

Length: 366 aa

Accession: P\_ABU54366;

Species: Homo sapiens.

Keywords: Human; PRO; secreted protein; transmembrane protein;  
enterocolitis; gastrointestinal ulceration; skin disease; abnormal  
keratinocyte differentiation; psoriasis; epithelial cancer;  
squamous cell carcinoma; Alzheimer's disease; Parkinson's disease;  
amyotrophic lateral sclerosis; inflammatory disease; rheumatoid  
arthritis; asthma; multiple sclerosis; organ failure;  
atherosclerosis; cardiac injury; infertility; birth defect;  
premature aging; AIDS; acquired immunodeficiency syndrome; cancer;  
diabetic complication; wound repair; patent; GENESEQ patentdb.

Patent number: US2002132240-A1.

Publication date: 19-SEP-2002.

Filing date: 18-JUL-2001; 2001US-0909320.

Priority: 10-SEP-1998; 98WO-US18824. 14-SEP-1998; 98WO-US19177.

16-SEP-1998; 98WO-US19330. 24-OCT-1997; 97US-062814P. 24-OCT-1997;

97US-062816P. plus 27 more dates.

Assignee: (GETH ) GENENTECH INC.

Inventors: Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;  
Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;  
Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ; Mather  
JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D; Williams PM, Wood  
WI;

Cross reference: WPI; 2003-147434/14. N-PSDB; ABX71541.

Title: New PRO polypeptides and nucleic acid molecules, useful in  
diagnosing or treating inflammatory diseases, organ failure,  
atherosclerosis, cardiac injury, infertility, cancer, AIDS,  
Alzheimer's disease or Parkinson's disease -

Patent format: Claim 12; Fig 42; 473pp; English.

Comment: The invention relates to an isolated PRO polypeptide having at  
least 80% amino acid sequence identity to: (a) any one of 61 fully  
defined amino acid sequences given in the specification (appearing  
as ABU54347- ABU54407); (b) an amino acid sequence encoded by the  
nucleotide sequence deposited under American Type Culture  
Collection (accession numbers listed in the specification); (c) any  
one of the PRO sequences which lacks its associated signal peptide;  
(d) an extracellular domain of the PRO polypeptide with its  
associated signal peptide; or (e) an extracellular domain of the  
PRO polypeptide which lacks its associated signal peptide. Also  
include are the nucleic acids encoding the PRO polypeptides,  
vectors, host cells and anti-PRO antibodies. The PRO polypeptides  
and nucleic acids are useful in diagnosing or treating  
enterocolitis, gastrointestinal ulceration, skin diseases  
associated with abnormal keratinocyte differentiation, e.g.  
psoriasis or epithelial cancers such as squamous cell carcinoma,  
Alzheimer's disease, Parkinson's disease, amyotrophic lateral  
sclerosis, inflammatory diseases, e.g. rheumatoid arthritis, asthma  
or multiple sclerosis, organ failure, atherosclerosis, cardiac  
injury, infertility, birth defects, premature aging, AIDS, cancer,  
diabetic complications, or mutations in general. The polypeptides  
are also useful for wound repair and associated therapies concerned  
with re-growth of tissue. The nucleotide sequences may be used as  
hybridisation probes in chromosome and gene mapping, or in

generating antisense RNA and DNA. PRO nucleic acids are also useful in preparing PRO polypeptides, in assays to identify other proteins or molecules involved in binding reaction, to generate transgenic animals or knockout animals, which in turn are useful in the development and screening of therapeutically useful reagents, for chromosome identification, and tissue typing. The PRO polypeptides and nucleic acid molecules are also useful in gene therapy, and as molecular weight markers for protein electrophoresis purposes. The anti-PRO antibodies may be used in diagnostic assays for PRO, or for the affinity purification of PRO from recombinant cell culture or natural sources. The present sequence represents a PRO polypeptide.

Database: GENESEQ patent database.

P\_ABU64518 Human secreted/transmembrane protein, #22 - Homo sapiens.

Length: 366 aa

Accession: P\_ABU64518;

Species: Homo sapiens.

Keywords: Human; PRO; secreted; transmembrane; pharmaceutical; diagnostic; biosensor; bioreactor; therapeutic; hyperplasia; endometriosis; cancer; tumour; ischaemia; coronary arterial disease; polycystic kidney disease; renal failure; inflammatory response; asthma; rheumatoid arthritis; psoriasis; multiple sclerosis; gene therapy; cytostatic; gynecological; cardiac; nephrotropic; hepatotropic; antiinflammatory; patent; GENESEQ patentdb.

Patent number: US2002160374-A1.

Publication date: 31-OCT-2002.

Filing date: 12-JUL-2001; 2001US-0905291.

Priority: 10-SEP-1998; 98WO-US18824. 14-SEP-1998; 98WO-US19177.

16-SEP-1998; 98WO-US19330. 24-NOV-1997; 97US-066772P. 18-SEP-2000; 2000US-0665350. plus 76 more dates.

Assignee: (GETH ) GENENTECH INC.

Inventors: Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N; Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A; Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ; Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D; Williams PM, Wood WI;

Cross reference: WPI; 2003-288105/28. N-PSDB; ABX96110.

Title: New secreted and transmembrane PRO polypeptides (e.g. PRO533 or PRO245) and genes encoding them, useful for detecting or treating e.g. hyperplasia, endometriosis, cancers, ischemia, coronary arterial disease or inflammations -

Patent format: Claim 12; Fig 42; 477pp; English.

Comment: The invention discloses isolated PRO secreted/transmembrane polypeptides and the nucleic acid encoding them. The polypeptides can be used to raise antibodies that specifically bind to the PRO polypeptide, for linking a bioactive molecule to a cell expressing a PRO protein and for modulating at least one biological activity of a cell. The PRO polypeptides or polynucleotides are also useful as pharmaceuticals, diagnostics, biosensors or bioreactors, for detecting or treating e.g. hyperplasia, endometriosis, cancers (e.g. those involving solid tumours), ischaemia, coronary arterial disease, polycystic kidney disease, chronic or acute renal failure, or inflammatory responses (e.g. asthma, rheumatoid arthritis, psoriasis or multiple sclerosis) in mammals. The PRO genes may also be used in gene therapy, particularly for replacing a defective gene. The sequences presented in ABU64499-ABU64559 are the PRO

polynucleotides of the invention.

Database: GENESEQ patent database.

P\_ABU67364 Human secreted protein PRO317 - Homo sapiens.

Length: 366 aa

Accession: P\_ABU67364;

Species: Homo sapiens.

Keywords: Human; gene therapy; mucosal lesion; ulcer; enterocolitis; skin disease; psoriasis; cancer; lung cancer; colon cancer; nerve cell disease; Alzheimer's disease; Parkinson's disease; Usher syndrome; angiogenesis; atrophica areata; inflammatory disease; asthma; rheumatoid arthritis; ischaemia; patent; GENESEQ patentdb.

Patent number: US2003023054-A1.

Publication date: 30-JAN-2003.

Filing date: 16-JUL-2001; 2001US-0906742.

Priority: 10-SEP-1998; 98WO-US18824. 14-SEP-1998; 98WO-US19177.

16-SEP-1998; 98WO-US19330.28-JUL-1999; 99US-146222P. 18-SEP-2000; 2000US-0665350. plus 88 more dates.

Assignee: (GETH ) GENENTECH INC.

Inventors: Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N; Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A; Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ; Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D; Williams PM, Wood WI;

Cross reference: WPI; 2003-331485/31. N-PSDB; ACA05431.

Title: Sixty one isolated nucleic acids encoding a PRO polypeptide, e.g. PRO245 or PRO1868, useful in chromosome and gene mapping, in generating antisense RNA and DNA, and in treating cancer and Alzheimer's disease -

Patent format: Example 18; Fig 42; 481pp; English.

Comment: The invention relates to sixty one nucleic acids encoding PRO polypeptides (secreted and transmembrane). The polynucleotide is useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA, and in gene therapy. The polynucleotide may also be used in preparing PRO polypeptides by recombinant techniques, and in generating either transgenic animals or knock-out animals which, in turn, are useful in the development and screening of therapeutically useful reagents. The PRO polypeptide or the antibody is used in preparing a medicament for treating a condition responsive to the polypeptide or antibody, such as mucosal lesions e.g. ulcers and enterocolitis, skin disease e.g. psoriasis, cancer e.g. lung cancer and colon cancer, nerve cell disease e.g. Alzheimer's disease and Parkinson's disease, Usher syndrome, atrophica areata, angiogenesis, inflammatory disease e.g. asthma and rheumatoid arthritis, ischaemia, and in various diagnostic assays. The present sequence represents the amino acid sequence of a PRO polypeptide.

Database: GENESEQ patent database.

P\_ABU71910 Human secreted/transmembrane protein PRO317 - Homo sapiens.

Length: 366 aa

Accession: P\_ABU71910;

Species: Homo sapiens.

Keywords: Human; secreted protein; transmembrane protein; PRO; gene therapy; chromosome identification; chromosome marker; patent; GENESEQ patentdb.

Patent number: US2003003530-A1.

Publication date: 02-JAN-2003.

Filing date: 11-JUL-2001; 2001US-0904011.

Priority: 10-SEP-1998; 98WO-US18824. 14-SEP-1998; 98WO-US19177.

16-SEP-1998; 98WO-US19330. 24-NOV-1997; 97US-066772P. 18-SEP-2000;  
2000US-0665350. plus 76 more dates.

Assignee: (GETH ) GENENTECH INC.

Inventors: Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;  
Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;  
Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ; Mather  
JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D; Williams PM, Wood  
WI;

Cross reference: WPI; 2003-329602/31. N-PSDB; ACA60093.

Title: New transmembrane polypeptides and nucleic acids encoding the  
polypeptides, useful in gene therapy, in chromosome identification,  
as chromosome markers, in generating probes and in tissue typing -

Patent format: Claim 12; Fig 42; 484pp; English.

Comment: The invention relates to an isolated nucleic acid with at least  
80% nucleic acid sequence identity to a nucleotide sequence  
encoding one of 61 secreted/transmembrane polypeptides, or PRO  
polypeptides or encoding a PRO protein extracellular domain. Also  
included are a vector comprising the PRO nucleic acid, a host cell  
comprising the vector, producing a PRO polypeptide (by culturing  
the host cell for the expression of the PRO polypeptide, and  
recovering the PRO polypeptide from the cell culture), an isolated  
PRO polypeptide (having at least 80% sequence identity to: (a) an  
amino acid sequence selected from the 61 PRO proteins; (b) an amino  
acid sequence encoded by a nucleic acid molecule deposited with an  
ATCC number (detailed in the specification); or (c) an  
extracellular domain of a PRO polypeptide or to a PRO polypeptide  
lacking its associated signal peptide), a chimaeric molecule  
comprising a PRO polypeptide fused to a heterologous amino acid  
sequence, an anti-PRO antibody, detecting a PRO245 or PRO1868 in a  
sample suspected of containing the polypeptide, linking a bioactive  
molecule to a cell expressing a PRO245 or PRO1868 and modulating at  
least one biological activity of a cell expressing a PRO245 or  
PRO1868. Nucleic acids which encode PRO can be used to generate  
either transgenic animals or knock-out animals which may be used in  
the development and screening of therapeutically useful reagents.  
The nucleic acids may also be used in gene therapy, in chromosome  
identification, as chromosome markers, or in generating probes. The  
PRO polypeptides are useful as molecular markers for protein  
electrophoresis, and the isolated nucleic acids may be used for  
recombinantly expressing those markers. The PRO polypeptides and  
nucleic acids may also be used in tissue typing. Anti-PRO  
antibodies are useful in diagnostic assays for PRO, and in affinity  
purification of PRO from recombinant cell culture or natural  
sources. The present sequence represents a PRO protein.

Database: GENESEQ patent database.

P\_ABU71464 Human PRO polypeptide #20 - Homo sapiens.

Length: 366 aa

Accession: P\_ABU71464;

Species: Homo sapiens.

Keywords: Human; secreted and transmembrane protein; PRO polypeptide;  
cancer; Alzheimer's disease; ischaemia; cytostatic; nootropic;  
vasotropic; neuroprotective; patent; GENESEQ patentdb.

Patent number: US2002192659-A1.

Publication date: 19-DEC-2002.

Filing date: 10-JUL-2001; 2001US-0902853.

Priority: 10-SEP-1998; 98WO-US18824. 14-SEP-1998; 98WO-US19177.

16-SEP-1998; 98WO-US19330.24-OCT-1997; 97US-062814P. 24-OCT-1997;

97US-062816P. plus 28 more dates.

Assignee: (GETH ) GENENTECH INC.

Inventors: Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;  
Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;  
Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ; Mather  
JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D; Williams PM, Wood  
WI;

Cross reference: WPI; 2003-361832/34. N-PSDB; ACA58386.

Title: New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO245 or  
PRO1868, useful in molecular biology, chromosome and gene mapping,  
in generating antisense RNA and DNA, and in gene therapy -

Patent format: Claim 12; Fig 42; 474pp; English.

Comment: The present invention relates to the isolation of novel human  
secreted and transmembrane proteins (PRO polypeptides), and the  
polynucleotide sequences encoding them. The polynucleotide  
sequences are useful in molecular biology, as hybridisation probes,  
in chromosome and gene mapping, in generating antisense RNA and  
DNA, and in gene therapy. The polynucleotide sequences may also be  
used in preparing PRO polypeptides by recombinant techniques, and  
in generating either transgenic animals or knock-out animals which,  
in turn, are useful in the development and screening of  
therapeutically useful reagents. The PRO polypeptides or their  
antibodies are useful in preparing a medicament for treating a  
condition responsive to the polypeptide or antibody, such as  
cancer, Alzheimer's disease or ischaemia, and in various diagnostic  
assays. ABU71445-ABU71505 represent human PRO polypeptides of the  
invention.

Database: GENESEQ patent database.

P\_ABU69641 Novel human secreted and transmembrane protein PRO317 - Homo  
sapiens.

Length: 366 aa

Accession: P\_ABU69641;

Species: Homo sapiens.

Keywords: Human; secreted and transmembrane protein; gene therapy;  
psoriasis; enterocolitis; gastrointestinal ulceration; skin  
disease; keratinocyte differentiation; epithelial cancer;  
Alzheimer's disease; squamous cell carcinoma; Parkinson's disease;  
inflammatory disease; amyotrophic lateral sclerosis; rheumatoid  
arthritis; asthma; multiple sclerosis; organ failure;  
atherosclerosis; cardiac injury; infertility; birth defect;  
premature aging; AIDS; cancer; diabetic complication; wound repair;  
tissue re-growth; patent; GENESEQ patentdb.

Patent number: US2003017463-A1.

Publication date: 23-JAN-2003.

Filing date: 11-JUL-2001; 2001US-0903640.

Priority: 10-SEP-1998; 98WO-US18824. 14-SEP-1998; 98WO-US19177.

16-SEP-1998; 98WO-US19330.28-JUL-1999; 99US-146222P. 18-SEP-2000;

2000US-0665350. plus 88 more dates.

Assignee: (GETH ) GENENTECH INC.

Inventors: Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;  
Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;



Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ; Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D; Williams PM, Wood WI;

Cross reference: WPI; 2003-341586/32. N-PSDB; ACA54901.

Title: New PRO polypeptides and nucleic acid molecules, useful in diagnosing or treating inflammatory diseases, organ failure, atherosclerosis, cardiac injury, infertility, cancer, AIDS, Alzheimer's disease or Parkinson's disease -

Patent format: Claim 12; Fig 42; 473pp; English.

Comment: The invention describes sixty one nucleic acids encoding PRO polypeptides (secreted and transmembrane). The PRO polypeptides and nucleic acids are useful in diagnosing or treating enterocolitis, gastrointestinal ulceration, skin diseases associated with abnormal keratinocyte differentiation, e.g. psoriasis or epithelial cancers such as squamous cell carcinoma, Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, inflammatory diseases, e.g. rheumatoid arthritis, asthma or multiple sclerosis, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, cancer, diabetic complications, or mutations in general. The polypeptides are also useful for wound repair and associated therapies concerned with re-growth of tissue. The PRO polypeptides and nucleic acid molecules are also useful in gene therapy, and as molecular weight markers for protein electrophoresis purposes. The anti-PRO antibodies may be used in diagnostic assays for PRO, or for the affinity purification of PRO from recombinant cell culture or natural sources. This is the amino acid sequence of a novel human PRO polypeptide.

Database: GENESEQ patent database.

P\_ABU71609 Human PRO polypeptide #20 - Homo sapiens.

Length: 366 aa

Accession: P\_ABU71609;

Species: Homo sapiens.

Keywords: Human; PRO; secreted polypeptide; transmembrane polypeptide; pathological disorder; cardiac insufficiency disorder; protein secretion; pancreas; diabetes; gastrointestinal mucosa; mucosal lesion; psoriasis; skin disease; keratinocyte differentiation; epithelial cancer; tumour; lung squamous cell carcinoma; epidermoid carcinoma; vulva; glioma; cytostatic; cardiant; endocrine; antidiabetic; gastrointestinal; antiulcer; dermatological; vulnerary; patent; GENESEQ patentdb.

Patent number: US2002146709-A1.

Publication date: 10-OCT-2002.

Filing date: 18-JUL-2001; 2001US-0909088.

Priority: 10-SEP-1998; 98WO-US18824. 14-SEP-1998; 98WO-US19177.

16-SEP-1998; 98WO-US19330.24-NOV-1997; 97US-066772P. 18-SEP-2000; 2000US-0665350. plus 76 more dates.

Assignee: (GETH ) GENENTECH INC..

Inventors: Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N; Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A; Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ; Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D; Williams PM, Wood WI;

Cross reference: WPI; 2003-328338/31. N-PSDB; ACA58989..

Title: Isolated nucleic acid useful for e.g., treating pathological disorders encodes a secreted or transmembrane protein -

Patent format: Claim 12; Fig 42; 473pp; English.

Comment: The invention relates to human PRO polypeptides (secreted or transmembrane polypeptides) and the polynucleotides encoding them. The PRO polypeptides and polynucleotides can be used in treating pathological disorders and tumours, in therapeutic treatment of cardiac insufficiency disorders and in therapeutic treatment of disorders involving protein secretion by the pancreas, including diabetes. They can also be used in treating disorders associated with the preservation and maintenance of gastrointestinal mucosa and the repair of acute and chronic mucosal lesions, and skin diseases associated with abnormal keratinocyte differentiation (e.g., psoriasis, epithelial cancers such as lung squamous cell carcinoma, epidermoid carcinoma of the vulva and gliomas). The sequences can be used as molecular markers for protein electrophoresis purposes and can be utilised in protein-protein binding assays, biochemical screening assays, immunoassays and cell-based assays. This sequence represents a human PRO polypeptide of the invention.

Database: GENESEQ patent database.

P\_ABO01793 Novel human secreted and transmembrane protein PRO317 - Homo sapiens.

Length: 366 aa

Accession: P\_ABO01793;

Species: Homo sapiens.

Keywords: Human; secreted and transmembrane protein; PRO; pharmaceutical; diagnostic; biosensor; bioreactor; Parkinson's disease; Alzheimer's disease; inflammation; nephritis; wound healing; nerve repair; collateral blood vessel formation; cancer; colorectal cancer; haemorrhage; rheumatoid arthritis; diabetes; cirrhosis; fibrosis; restenosis; dermal fibrotic condition; keloid; scarring; ischaemia; stroke; hypertension; heart attack; atherosclerosis; infertility; gene therapy; patent; GENESEQ patentdb.

Patent number: US2002197671-A1.

Publication date: 26-DEC-2002.

Filing date: 17-JUL-2001; 2001US-0907824.

Priority: 10-SEP-1998; 98WO-US18824. 14-SEP-1998; 98WO-US19177. 16-SEP-1998; 98WO-US19330. 24-NOV-1997; 97US-066772P. 18-SEP-2000; 2000US-0665350. plus 76 more dates.

Assignee: (GETH ) GENENTECH INC.

Inventors: Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N; Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A; Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ; Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D; Williams PM, Wood WI;

Cross reference: WPI; 2003-370793/35. N-PSDB; ACD07493.

Title: New genes and secreted and transmembrane polypeptides (e.g. PRO245 or PRO335), useful for treating or diagnosing e.g. Alzheimer's disease, cancers, hemorrhage, rheumatoid arthritis, diabetes, cirrhosis, ischemia or strokes -

Patent format: Claim 12; Fig 42; 482pp; English.

Comment: The invention describes a new isolated nucleic acid molecule comprising the full length coding sequence of the DNA deposited with the American Type Culture Collection (e.g. ATCC Deposit No. 209258) ,or a sequence with at least 80% identity to a DNA encoding a PRO polypeptide comprising any of 61 sequences having 164-1119 amino acids fully defined in the specification. The PRO polypeptides or polynucleotides are useful as pharmaceuticals,

diagnostics, biosensors or bioreactors. These are particularly useful for detecting or treating e.g. Parkinson's disease, Alzheimer's disease, inflammations, nephritis, wound healing, nerve repair, collateral blood vessel formation, cancers (e.g. colorectal cancer), haemorrhage (or reduce risk for haemorrhage), rheumatoid arthritis, diabetes, cirrhosis of the liver, fibrosis of the lungs, restenosis, dermal fibrotic conditions (e.g. keloids or scarring), ischaemia, strokes, hypertension, heart attacks, atherosclerosis, or infertility in mammals (e.g. humans, dogs, cats, cattle, horses, sheep, pigs, goats, or rabbits) The PRO polypeptides are useful as targets for therapeutic intervention in these diseases, and diagnostic determination of the presence of these diseases. The PRO polypeptides are also useful as molecular weight markers, or for chromosome identification. The PRO genes are useful as hybridisation probes, or for screening libraries of human cDNA, genomic DNA or mRNA. The PRO genes may also be used in gene therapy, particularly for replacing a defective gene. This is the amino acid sequence of a novel human secreted and transmembrane PRO polypeptide.

Database: GENESEQ patent database.

P\_AB014823 Human secreted / transmembrane polypeptide PRO317 - Homo sapiens.

Length: 366 aa

Accession: P\_AB014823;

Species: Homo sapiens.

Keywords: Human; ss; gene therapy; apoptosis; bleeding; tumour; ALS; gynaecological disease; hysterectomy; angiogenesis; skin disease; cancer; coronary ischaemic condition; gastrointestinal mucosa disorder; asthma; mucosal lesion repair; keratinocyte differentiation; psoriasis; Parkinson's disease; Alzheimer's disease; amyotrophic lateral sclerosis; neuropathy; blood coagulation cascade disorder; thrombosis; haemorrhage; neurodegenerative disease; endometrial bleeding; wound healing; tissue repair; rheumatoid arthritis; multiple sclerosis; tissue typing; patent; GENESEQ patentdb.

Patent number: US2003027143-A1.

Publication date: 06-FEB-2003.

Filing date: 16-JUL-2001; 2001US-0906838.

Priority: 10-SEP-1998; 98WO-US18824. 14-SEP-1998; 98WO-US19177.

16-SEP-1998; 98WO-US19330. 28-JUL-1999; 99US-146222P. 18-SEP-2000; 2000US-0665350. plus 88 more dates.

Assignee: (GETH ) GENENTECH INC.

Inventors: Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N; Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A; Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ; Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D; Williams PM, Wood WI;

Cross reference: WPI; 2003-417249/39. N-PSDB; ACD19736.

Title: Novel secreted and transmembrane polypeptides and polynucleotides encoding them useful for treating abnormal bleeding involved in gynecological diseases, skin diseases and neurodegenerative diseases -

Patent format: Claim 12; Fig 42; 467pp; English.

Comment: The invention relates to an isolated secreted and transmembrane PRO polypeptide. The PRO polypeptides are useful for modulating biological activity of a cell, in diagnosing or treating abnormal

bleeding involved in gynaecological diseases e.g. to avoid or lessen the need for hysterectomy, for treating angiogenesis, tumour, coronary ischaemic condition, disorders associated with the preservation and maintenance of gastrointestinal mucosa and the repair of acute and chronic mucosal lesions, skin diseases associated with abnormal keratinocyte differentiation (e.g. psoriasis), Parkinson's disease, Alzheimer's disease, amyotrophic lateral sclerosis (ALS), neuropathies, disease related to uncontrolled cell growth (e.g. cancer), blood coagulation cascade disorders, neurodegenerative disease, thrombosis, haemorrhage, endometrial bleeding, wound healing, tissue repair, asthma, rheumatoid arthritis, multiple sclerosis. Nucleic acid encoding PRO polypeptides are useful in molecular biology including uses as hybridisation probes and in the generation of antisense RNA and DNA, for preparing PRO polypeptides, for generating transgenic animals or knockout animals. The PRO polypeptides and their nucleic acids are useful for tissue typing. PRO antibodies are useful for immunohistochemical staining and/or assay of sample fluids. Anti-PRO antibodies are useful in diagnostic assays for PRO e.g. detecting its expression in specific cells, tissues or serum and for affinity purification of PRO from recombinant cell culture or natural sources. The present sequence represents the amino acid sequence of a human secreted and transmembrane PRO polypeptide.

Database: GENESEQ patent database.

P\_AB017574 Human PRO polypeptide #20 - Homo sapiens.

Length: 366 aa

Accession: P\_AB017574;

Species: Homo sapiens.

Keywords: Human; PRO; secreted polypeptide; transmembrane polypeptide; leukocyte homing; rheumatoid arthritis; psoriasis; multiple sclerosis; mucosal lesion; enterocolitis Zollinger Ellison syndrome; asthma; antiasthmatic; antirheumatic; antiarthritic; neuroprotective; patent; GENESEQ patentdb.

Patent number: US2003064923-A1.

Publication date: 03-APR-2003.

Filing date: 13-JUL-2001; 2001US-0905348.

Priority: 10-SEP-1998; 98WO-US18824. 14-SEP-1998; 98WO-US19177.

16-SEP-1998; 98WO-US19330.28-JUL-1999; 99US-146222P. 18-SEP-2000; 2000US-0665350. plus 88 more dates.

Assignee: (GETH ) GENENTECH INC.

Inventors: Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N; Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A; Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ; Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D; Williams PM, Wood WI;

Cross reference: WPI; 2003-567190/53. N-PSDB; ACD23584.

Title: Novel secreted and transmembrane polypeptide for modulating biological activity of cell expressing the polypeptide, identifying agonists or antagonists of polypeptide, and as molecular weight markers -

Patent format: Claim 12; Fig 42; 471pp; English.

Comment: The invention relates to human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The polypeptides are useful for detecting PRO polypeptides and for linking a bioactive molecule to a cell expressing the polypeptides, where the bioactive molecule is a toxin, radiolabel or an antibody.

The bioactive material causes the death of the cell. The polypeptides or antibodies specific to the polypeptides are useful for modulating at least one biological activity of a cell expressing the polypeptides. The polypeptides are useful for treating disorders associated with leukocyte homing such as asthma, rheumatoid arthritis, psoriasis and multiple sclerosis, repair of acute and chronic mucosal lesions such as enterocolitis and Zollinger Ellison syndrome and for identifying agonists or antagonists of the polypeptides. The polynucleotides are useful as hybridization probes, in chromosome and gene mapping, in generation of antisense RNA and DNA, in the preparation of PRO polypeptides and for generating probes for polymerase chain reaction (PCR), Northern analysis, Southern analysis and Western analysis. Sequences ABO17555-ABO17615 represent human PRO polypeptides of the invention.

Database: GENESEQ patent database.

P\_ABO17513 Human PRO polypeptide #20 - Homo sapiens.

Length: 366 aa

Accession: P\_ABO17513;

Species: Homo sapiens.

Keywords: Human; PRO; Parkinson's disease; Alzheimer's disease; ALS; amyotrophic lateral sclerosis; neuropathy; cancer; viral infection; AIDS; Usher's syndrome; haemorrhage; enterocolitis; Zollinger-Ellison syndrome; gastrointestinal ulceration; congenital microvillus atrophy; psoriasis; skin disease; endometrial bleeding; angiogenesis; ischaemic condition; asthma; rheumatoid arthritis; multiple sclerosis; inflammatory disease; atherosclerosis; infertility; birth defect; premature aging; stroke; diabetic complication; patent; GENESEQ patentdb.

Patent number: US2003064367-A1.

Publication date: 03-APR-2003.

Filing date: 13-JUL-2001; 2001US-0904485.

Priority: 10-SEP-1998; 98WO-US18824. 14-SEP-1998; 98WO-US19177.

16-SEP-1998; 98WO-US19330. 28-JUL-1999; 99US-146222P. 18-SEP-2000;

2000US-0665350. plus 88 more dates.

Assignee: (GETH ) GENENTECH INC.

Inventors: Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N; Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A; Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ; Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D; Williams PM, Wood WI;

Cross reference: WPI; 2003-567176/53. N-PSDB; ACD23222.

Title: Novel isolated PRO polypeptides e.g. PRO245 and PRO1868, useful for treating e.g. Parkinson's disease, Alzheimer's disease, amyotrophic lateral sclerosis, cancer, neuropathies, diabetes and psoriasis -

Patent format: Claim 12; Fig 42; 477pp; English.

Comment: The invention relates to human PRO polypeptides and the polynucleotides encoding them. The polypeptides and polynucleotides are used for treating diseases related to growth or survival of nerve cells such as Parkinson's disease, Alzheimer's disease, amyotrophic lateral sclerosis (ALS) and neuropathies, diseases related to uncontrolled cell growth such as cancer, viral infections, Usher's syndrome, haemorrhage, enterocolitis, Zollinger-Ellison syndrome, gastrointestinal ulceration, congenital microvillus atrophy, skin diseases such as psoriasis and epithelial cancers, endometrial bleeding, angiogenesis, ischaemic conditions,

asthma, rheumatoid arthritis, multiple sclerosis, inflammatory diseases, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, stroke and diabetic complications. The polynucleotides are also useful in chromosome and gene mapping. Sequences ABO17494-ABO17554 represent human PRO polypeptides of the invention.

Database: GENESEQ patent database.

P\_ABO14884 Human secreted / transmembrane polypeptide PRO317 - Homo sapiens.

Length: 366 aa

Accession: P\_ABO14884;

Species: Homo sapiens.

Keywords: Human; gene therapy; tumour; tissue typing; obesity; arthritis; diabetes; hypoinsulinaemia; hyperinsulinaemia; vascular permeability; cardiac insufficiency disorder; immune response; regeneration; cartilage; auditory hair cell; hearing loss; bone disorder; sports injury; patent; GENESEQ patentdb..

Patent number: US2003036060-A1.

Publication date: 20-FEB-2003.

Filing date: 12-JUL-2001; 2001US-0904859.

Priority: 10-SEP-1998; 98WO-US18824. 14-SEP-1998; 98WO-US19177.

16-SEP-1998; 98WO-US19330. 28-JUL-1999; 99US-146222P. 18-SEP-2000;

2000US-0665350. plus 88 more dates.

Assignee: (GETH ) GENENTECH INC.

Inventors: Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N; Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A; Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ; Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D; Williams PM, Wood WI;

Cross reference: WPI; 2003-417923/39. N-PSDB; ACD20098.

Title: Novel secreted and transmembrane polypeptide for modulating biological activity of cell expressing the polypeptide, identifying agonists or antagonists of polypeptide, and as molecular weight markers -

Patent format: Claim 12; Fig 42; 469pp; English.

Comment: The invention relates to an isolated, secreted and transmembrane polypeptide, termed PRO polypeptide. The polypeptide is useful for identifying agonists or antagonists of the polypeptide, for preparing variants of the polypeptide, as molecular weight markers for protein electrophoresis purpose and the nucleic acid is useful for recombinantly expressing those markers. The polypeptide is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding interaction. The nucleic acid is useful as hybridisation probes, in chromosome and gene mapping, in generation of antisense RNA and DNA, in the preparation of PRO polypeptide, for generating transgenic animals or knockout animals which in turn are useful in the development and screening of therapeutically useful reagents, to construct hybridisation probes for mapping the gene which encodes the PRO and for the genetic analysis of individuals with genetic disorders, in gene therapy, for chromosome identification, as chromosome marker, and for generating probes for polymerase chain reaction (PCR), Northern analysis, Southern analysis and Western analysis. PRO antibody is useful in diagnostic assays for PRO, e.g. detecting its expression in specific cells, tissues or serum and for affinity purification of PRO from recombinant cell culture or natural

sources. The polypeptide or its antibody is useful for the preparation of medicament for treating conditions which is responsive to the PRO polypeptide or anti-PRO antibody e.g. tumour. The polypeptide and the nucleic acid is useful for tissue typing. The polypeptide is useful for treating obesity, diabetes or hypo- or hyper-insulinaemia and cardiac insufficiency disorders, for inhibiting tumour growth, enhances vascular permeability and immune response, for inducing regeneration of auditory hair cells and for treating hearing loss in mammals and for treating bone and/or cartilage disorders such as sports injuries and arthritis. The present sequence represents the amino acid sequence of a human secreted and transmembrane PRO polypeptide.

Database: GENESEQ patent database.

P\_ABG96362. Human ovarian cancer marker M457 - Homo sapiens.

Length: 366 aa

Accession: P\_ABG96362;

Species: Homo sapiens.

Keywords: Human; ovarian cancer; marker; cancer; familial history; brain disorder; central nervous system disorder; bacterial meningitis; viral meningitis; Alzheimer's disease; Parkinson's disease; cerebral oedema; hydrocephalus; brain herniation; inflammation; encephalitis; testicular disorder; nontuberculous granulomatous orchitis; connective tissue disorder; heart disorder; ischaemic heart disease; atherosclerosis; neoplasm; histological type; carcinogenic; ovarian cancer marker; patent; GENESEQ patentdb.

Patent number: WO200271928-A2.

Publication date: 19-SEP-2002.

Filing date: 14-MAR-2002; 2002WO-US07826.

Priority: 14-MAR-2001; 2001US-276025P. 14-MAR-2001; 2001US-276026P.

10-AUG-2001; 2001US-311732P. 19-SEP-2001; 2001US-323580P.

26-SEP-2001; 2001US-324967P. 26-SEP-2001; 2001US-325102P.

26-SEP-2001; 2001US-325149P.

Assignee: (MILL-) MILLENNIUM PHARM INC.

Inventors: Monahan JE, Gannavarapu M, Hoersch S, Kamatkar S, Kovatis SG; Meyers RE, Morrissey MP, Olandt PJ, Sen A, Vieby PO, Mills GB; Bast RC, Lu K, Schmandt RE, Zhao X, Glatt K;

Cross reference: WPI; 2002-723277/78. N-PSDB; ABS76458.

Title: Assessing whether a patient is afflicted with ovarian cancer, useful in assessing the stage or progression of the disease, comprises comparing the expression level of a cancer marker in a sample from a patient and from a non cancer patient -

Patent format: Disclosure; Page 298-299; 481pp; English.

Comment: The present invention relates to a new method for assessing whether a patient is afflicted with ovarian cancer. The method involves comparing the expression level of a marker in a patient sample and the normal level of expression of the marker in a control non-ovarian cancer sample, where the marker is selected from 363 cancer markers described in the specification. The method of the invention is useful in diagnosing or characterising cancer, in detecting the presence of cancer as early as possible, and the recurrence of ovarian cancer. The method may also be of particular use with patients having an enhanced risk of developing ovarian cancer (e.g. patients having a familial history of ovarian cancer). The cancer markers may be used in the management and treatment of e.g. brain and central nervous system disorders (e.g. bacterial and viral meningitis, Alzheimer's disease or Parkinson's disease),

brain disorders (e.g. cerebral oedema, hydrocephalus or brain herniations), inflammations (e.g. bacterial or viral meningitis or encephalitis), testicular disorders (e.g. nontuberculous granulomatous orchitis), connective tissue disorders, or heart disorders (e.g. ischaemic heart disease or atherosclerosis). The compositions and methods may also be used in assessing the histological type of neoplasm associated with ovarian cancer, monitoring the progression of ovarian cancer, determining whether ovarian cancer has metastasized or is likely to metastasize, selecting a composition for inhibiting ovarian cancer, assessing the ovarian carcinogenic potential of a compound, or inhibiting ovarian cancer or at risk of developing ovarian cancer. The present amino acid sequence represents one of the ovarian cancer markers described in the invention.

Database: GENESEQ patent database.

P\_AAE28182 Human Lefty protein - Homo sapiens.

Length: 366 aa

Accession: P\_AAE28182;

Species: Homo sapiens.

Keywords: Human; Nodal protein; Lefty protein; cell growth; cell differentiation; tumour; intestinal lung disease; cancer; arthritis; immunosuppression; autoimmunity; leukaemia; lymphoma; immunity; inflammatory bowel disease; myelosuppression; cytostatic; immunosuppressive; antiinflammatory; patent; GENESEQ patentdb.

Patent number: US2002086351-A1.

Publication date: 04-JUL-2002.

Filing date: 20-AUG-1998; 98US-0137415.

Priority: 20-AUG-1998; 98US-0137415.

Assignee: (EBNE/) EBNER R. (SOPP/) SOPPET D R. (RUBE/) RUBEN S M.

Inventors: Ebner R, Soppet DR, Ruben SM;

Cross reference: WPI; 2002-673479/72. N-PSDB; AAD45128.

Title: Novel Nodal and Lefty polypeptides useful for diagnosing or treating cell growth and differentiation related disorders in humans, e.g. cancer, autoimmunity, arthritis and immunosuppression -

Patent format: Claim 27; Page 51-52; 68pp; English.

Comment: The present invention relates to novel Nodal and Lefty polypeptides and polynucleotides encoding such proteins. Sequences of the invention are useful for preventing, treating or ameliorating medical conditions. They are useful to diagnose or treat cell growth and differentiation related disorders in mammals, preferably humans such as tumour, intestinal lung disease, cancer and any dis-regulation of growth and differentiation pattern of cell function including autoimmunity, arthritis, leukaemia, lymphoma, immunosuppression, immunity, humoral immunity, inflammatory bowel disease or myelosuppression. The present sequence is human Lefty protein.

1-18/Peptide

/label= Signal-peptide/

19-366/Protein

/note= Human mature Lefty protein/

19-24/Modified-site

/note= Myristylation site/

68-71/Modified-site

/note= Casein kinase II (CK2) phosphorylation site/

74-77/Cleavage-site

/note= TGF-beta consensus cleavage sequence;/



Amidation site/  
 76-79/Modified-site  
 /note= cAMP- and cGMP- dependent protein kinase/  
 (CPK) phosphorylation site/  
 81-83/Modified-site  
 /note= Protein kinase C (PKC) phosphorylation site/  
 81-84/Modified-site  
 /note= Casein kinase II (CK2) phosphorylation site/  
 132-135/Cleavage-site  
 /note= TGF-beta consensus cleavage sequence/  
 137-139/Modified-site  
 /note= Protein kinase C (PKC) phosphorylation site/  
 139-142/Cleavage-site  
 /note= TGF-beta consensus cleavage sequence/  
 140-142/Modified-site  
 /note= Protein kinase C (PKC) phosphorylation site/  
 156-161/Modified-site  
 /note= Myristylation site/  
 158-161/Modified-site  
 /note= N-linked glycosylation site/  
 157-159/Modified-site  
 /note= Protein kinase C (PKC) phosphorylation site/  
 161-164/Modified-site  
 /note= Casein kinase II (CK2) phosphorylation site/  
 169-172/Modified-site  
 /note= Casein kinase II (CK2) phosphorylation site/  
 225-230/Modified-site  
 /note= Myristylation site/  
 260-265/Modified-site  
 /note= Myristylation site/  
 274-279/Modified-site  
 /note= Myristylation site/  
 282-297/Region  
 /note= TGF-beta family signature/  
 296-298/Modified-site  
 /note= Protein kinase C (PKC) phosphorylation site/  
 319-322/Modified-site  
 /note= Casein kinase II (CK2) phosphorylation site/  
 329-331/Modified-site  
 /note= Protein kinase C (PKC) phosphorylation site/  
 329-332/Modified-site  
 /note= Casein kinase II (CK2) phosphorylation site/  
 Database: GENESEQ patent database.

P\_AAB80231 Human PRO317 protein - Homo sapiens.

Length: 366 aa

Accession: P\_AAB80231;

Species: Homo sapiens.

Keywords: Human; PRO; dermatological; antipsoriatic; cytostatic;  
 antiinflammatory; antiparkinsonian nootropic; neuroprotective;  
 vulnerary; cardiant; antiangiogenic; vasotropic; antiasthmatic;  
 antirheumatic; cancer; antiarthritic; antiinfertility;  
 antidiabetic; antiviral; diabetes; ophthalmological; gene therapy;  
 skin disease; gastrointestinal disorder; ischaemia; inflammation;  
 patent; GENESEQ patentdb.

Patent number: WO200104311-A1.

Publication date: 18-JAN-2001.

Filing date: 22-FEB-2000; 2000WO-US04414.

Priority: 07-JUL-1999; 99US-0143048. 26-JUL-1999; 99US-0145698.

28-JUL-1999; 99US-0146222. 08-SEP-1999; 99WO-US20594. 13-SEP-1999;  
99WO-US20944. 15-SEP-1999; 99WO-US21090. 15-SEP-1999; 99WO-US21547.  
05-OCT-1999; 99WO-US23089. 29-NOV-1999; 99WO-US28214. 30-NOV-1999;  
99WO-US28313. 16-DEC-1999; 99WO-US30095. 20-DEC-1999; 99WO-US30911.  
20-DEC-1999; 99WO-US30999. 05-JAN-2000; 99WO-US00219.

Assignee: (GETH ) GENENTECH INC.

Inventors: Ashkenazi AJ, Botstein D, Desnoyers L, Eaton DL, Ferrara N;  
Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;  
Godowski PJ, Grimaldi CJ, Gurney AL, Hillan KJ, Kljavin IJ; Mather  
JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D; Williams PM, Wood  
WI;

Cross reference: WPI; 2001-081051/09. N-PSDB; AAF72392.

Title: Sixty one nucleic acids encoding PRO polypeptides which are useful  
in the treatment of skin diseases (e.g. psoriasis), cancers (e.g.  
lung squamous cell carcinoma) and neurodegenerative diseases (e.g.  
Alzheimer's disease) -

Patent format: Claim 1; Fig 42; 393pp; English.

Comment: The present sequence is one of sixty one novel secreted and  
transmembrane PRO polypeptides. The PRO polypeptides are useful for  
treating skin diseases (e.g. psoriasis), cancers (e.g. lung  
squamous cell carcinoma), gastrointestinal disorders (e.g.  
enterocolitis), neurodegenerative diseases (e.g. Alzheimer's  
disease, Parkinson's disease), wound repair, cardiovascular  
disorders (e.g. endometrial bleeding angiogenesis, ischaemias such  
as coronary ischaemia, atherosclerosis), inflammatory disorders  
(e.g. asthma, rheumatoid arthritis, multiple sclerosis),  
infertility, AIDS and diabetes and retinal disorders such as  
retinitis pigmentosum. The PRO nucleic acids have applications in  
molecular biology, including use as hybridization probes, and in  
chromosome and gene mapping.

Database: GENESEQ patent database.

P\_AAB68600 PRO317 - Homo sapiens.

Length: 366 aa

Accession: P\_AAB68600;

Species: Homo sapiens.

Keywords: Cytostatic; PRO protein; tumour; cancer; patent; GENESEQ  
patentdb.

Patent number: WO200105836-A1.

Publication date: 25-JAN-2001.

Filing date: 20-DEC-1999; 99WO-US30999.

Priority: 20-JUL-1999; 99US-0144758. 26-JUL-1999; 99US-0145698.

08-SEP-1999; 99WO-US20594. 13-SEP-1999; 99WO-US20944. 15-SEP-1999;  
99WO-US21090. 05-OCT-1999; 99WO-US23089. 29-NOV-1999; 99WO-US28214.  
30-NOV-1999; 99WO-US28313. 02-DEC-1999; 99WO-US28564.

Assignee: (GETH ) GENENTECH INC.

Inventors: Botstein D, Goddard A, Gurney AL, Hillan KJ, Roy MA, Wood WI;

Cross reference: WPI; 2001-091968/10. N-PSDB; AAF60376.

Title: New antibody that binds to a PRO polypeptide, e.g. PRO187 and  
PRO533, useful for diagnosing and treating cancers -

Patent format: Claim 61; Fig 18; 196pp; English.

Comment: The present invention relates to PRO proteins and coding  
sequences. The present sequence is one such PRO protein. It was  
found that the PRO genes are amplified in the genome of tumour  
cells. The gene amplification is expected to be associated with the

overexpression of the gene product and contributes to tumourigenesis. Therefore, antagonists of PRO proteins are useful for the treatment of benign or malignant tumours, leukaemias, lymphoid malignancies and other disorders such as neuronal, glial, astrocytal, hypothalamic, glandular, epithelial, inflammatory and immunologic disorders.

Database: GENESEQ patent database.

P\_AAY88575 Human PRO317 amino acid sequence - Homo sapiens.

Length: 366 aa

Accession: P\_AAY88575;

Species: Homo sapiens.

Keywords: Antibody; PRO187; PRO533; PRO214; PRO240; PRO211; PRO230; PRO261; PRO246; PRO317; tumour growth inhibitor; cancer; diagnosis; treatment; human; cell growth; proliferation; transforming growth factor; ADEPT; antibody dependent enzyme mediated prodrug therapy; patent; GENESEQ patentdb.

Patent number: WO200015666-A2.

Publication date: 23-MAR-2000.

Filing date: 08-SEP-1999; 99WO-US20594.

Priority: 10-SEP-1998; 98US-0099803. 10-SEP-1998; 98WO-US18824.

Assignee: (GETH ) GENENTECH INC.

Inventors: Goddard A, Gurney AL, Hillan KJ, Roy MA, Wood WI, Botstein D;

Cross reference: WPI; 2000-271386/23. N-PSDB; AAA30056.

Title: New isolated antibodies which bind to specific polypeptides used for diagnosis and treatment of neoplastic cell growth and proliferation

Patent format: Example 9; Fig 18; 200pp; English.

Comment: This sequence represents a human PRO317 amino acid sequence.

PRO317 shares sequence homology with members of the transforming growth factor beta superfamily of proteins. The invention relates to isolated antibodies which bind to a polypeptide. The "PRO" polypeptides are encoded by genes which are over expressed in the genome of tumour cells. Vectors and host cells comprising the nucleic acid encoding the antibodies are used in the production of the antibodies. The antibodies and nucleic acids encoding them are used for diagnosing a tumour in a mammal. The antibodies are used for inhibiting the growth of tumour cells and identifying compounds that inhibit a biological or immunological activity of and/or expression of a PRO187, PRO533, PRO214, PRO240, PRO211, PRO230, PRO261, PRO246 or PRO317 polypeptide. The antibody can be used in antibody dependent enzyme mediated prodrug therapy (ADEPT) by conjugating the antibody to a prodrug-activating enzyme which converts a prodrug to an anti-cancer drug. The antibodies can be fluorescently labelled and monitored by light microscopy, flow cytometry or fluorimetry for diagnosis and prognosis of tumours.

Database: GENESEQ patent database.

P\_AAY05287 EGF-like homologue EBAF-2 - Homo sapiens.

Length: 366 aa

Accession: P\_AAY05287;

Species: Homo sapiens.

Keywords: Antibody; PRO187; PRO533; PRO214; PRO240; PRO211; PRO230; PRO261; PRO246; EBAF-2; inhibitor; tumour growth; cancer; EGF-like homologue; FGF-8 homologue; patent; GENESEQ patentdb.

Patent number: WO9914327-A2.

Publication date: 25-MAR-1999.

Filing date: 10-SEP-1998; 98WO-US18824.

Priority: 25-NOV-1997; 97US-0066840. 17-SEP-1997; 97US-0059114.

17-SEP-1997; 97US-0059117. 18-SEP-1997; 97US-0059263. 15-OCT-1997;  
97US-0062125. 17-OCT-1997; 97US-0062285. 17-OCT-1997; 97US-0062287.  
24-OCT-1997; 97US-0062816. 29-OCT-1997; 97US-0063704.

Assignee: (GETH ) GENENTECH INC.

Inventors: Botstein D, Goddard A, Gurney A, Hillan K, Lawrence DA; Roy M,  
Wood WI;

Cross reference: WPI; 1999-229532/19. N-PSDB; AAX28437.

Title: Antibodies against specific proteins overexpressed in tumours

Patent format: Example 1; Fig 30; 130pp; English.

Comment: This sequence represents the EGF-like homologue EBAF-2. The invention relates to antibodies (Ab) that bind to any of the polypeptides (I) designated PRO187; PRO533; PRO214; PRO240; PRO211; PRO230; PRO261; PRO246 or EBAF-2. The Ab, or other agents that inhibit expression and/or activity of (I) are used: (i) to inhibit growth of tumours; and (ii) as diagnostic/prognostic reagents for detection or quantification of (I) in cells or tissues, by standard immunoassays, with overexpression being indicative of cancer. For therapeutic use, the Ab may be conjugated to a toxin, chemotherapeutic agent or radioisotope. Genes expressing (I), many of which are growth factor homologues, are overexpressed in some cases of cancer.

Database: GENESEQ patent database.

P\_AAY03850 Human lefty protein - Homo sapiens.

Length: 366 aa

Accession: P\_AAY03850;

Species: Homo sapiens.

Keywords: Nodal protein; lefty protein; TGF-beta; sexual development;  
human; pituitary; cartilage; osteoarthritis; osteoporosis;  
haematopoiesis; periodontal disease; wound healing; tissue repair;  
tumour; cancer; interstitial lung disease; autoimmunity; leukaemia;  
lymphoma; immunity; immunosuppression; inflammatory bowel disease;  
myelosuppression; infectious disease; bone; patent; GENESEQ  
patentdb.

Patent number: WO9909198-A1.

Publication date: 25-FEB-1999.

Filing date: 20-AUG-1998; 98WO-US17211.

Priority: 21-AUG-1997; 97US-0056565.

Assignee: (HUMA-) HUMAN GENOME SCI INC.

Inventors: Ebner R, Ruben SM, Soppet DR;

Cross reference: WPI; 1999-190173/16. N-PSDB; AAX31925.

Title: New isolate human Nodal and Lefty polypeptides

Patent format: Claim 1; Fig 1B; 182pp; English.

Comment: The present invention relates to novel human nodal and lefty proteins which are members of the TGF-beta family. The human nodal and lefty proteins may be involved in a developmental process such as the correct formation of various structures or in one or more post-developmental capacities including sexual development, pituitary hormone production, and the creation of bone and cartilage. The Nodal and Lefty polypeptides are useful for enhancing or enriching the growth and/or differentiation of specific cell populations, eg. embryonic cells or stem cells. They can be used to treat such conditions as osteoarthritis, osteoporosis, and other abnormalities of bone, cartilage, muscle, tendon, ligament, and/or other connective tissues and/or organs

such as liver, lung, cardiac, pancreas, and kidney. Compositions containing nodal and lefty proteins may be useful for growth formation, for treating periodontal disease and for modulating haematopoiesis, wound healing and tissue repair. They can also be used for the treatment of tumours, cancers, interstitial lung disease, and any dysregulation of the growth and differentiation patterns of cell function including autoimmunity, arthritis, leukaemia, lymphomas, immunosuppression, immunity, humoral immunity, inflammatory bowel disease, myelosuppression, or infectious diseases. The present sequence represents a human lefty polypeptide. The cDNA encoding the lefty protein is deposited under the ATCC deposit No. 209091.

1-18/Peptide

/note= signal peptide/

19-366/Protein

/note= mature protein/

78-364/Domain

/note= first predicted TGF-beta like domain of lefty/

136-366/Domain

/note= second predicted TGF-beta like domain of lefty/

143-366/Domain

/note= third predicted TGF-beta like domain of lefty/

Database: GENESEQ patent database.

P\_AAY13363 Amino acid sequence of protein PRO317 - Homo sapiens.

Length: 366 aa

Accession: P\_AAY13363;

Species: Homo sapiens.

Keywords: Secreted protein; transmembrane protein; human; enterocolitis; Zollinger-Ellison syndrome; gastrointestinal ulceration; congenital microvillus atrophy; skin disease; cell growth; abnormal keratinocyte differentiation; psoriasis; epithelial cancer; Parkinson's disease; Alzheimer's disease; ALS; neuropathy; fibromodulin; dermal scarring; Usher Syndrome; Atrophia areata; anti-thrombotic; wound healing; tissue repair; patent; GENESEQ patentdb.

Patent number: WO9914328-A2.

Publication date: 25-MAR-1999.

Filing date: 16-SEP-1998; 98WO-US19330.

Priority: 25-NOV-1997; 97US-0066840. 17-SEP-1997; 97US-0059113.

17-SEP-1997; 97US-0059115. 24-NOV-1997; 97US-0066511. 24-NOV-1997;

97US-0066453. plus 47 more dates.

Assignee: (GETH ) GENENTECH INC.

Inventors: Chen J, Goddard A, Gurney AL, Pennica D, Wood WI, Yuan J;

Cross reference: WPI; 1999-229533/19. N-PSDB; AAX52234.

Title: New isolated human genes and polypeptides used in, e.g. treatment of gastrointestinal ulceration

Patent format: Claim 12; Fig 42; 320pp; English.

Comment: AAY13344-403 represent secreted and transmembrane human proteins.

The cDNA sequences are obtained from cDNA libraries, prepared from fetal lung, fetal kidney, fetal brain, fetal liver and fetal retina. The encoded polypeptides have specific uses based on their homology to known polypeptides, e.g. PRO211 and PRO217 can be used for disorders associated with the preservation and maintenance of gastrointestinal mucosa and the repair of acute and chronic mucosal lesions (e.g. enterocolitis, Zollinger-Ellison syndrome, gastrointestinal ulceration and congenital microvillus atrophy),

skin diseases associated with abnormal keratinocyte differentiation (e.g. psoriasis, epithelial cancers such as lung squamous cell carcinoma of the vulva and gliomas), potent effects on cell growth and development, diseases related to growth or survival of nerve cells including Parkinson's disease, Alzheimer's disease, ALS, neuropathies or cancer. PRO265 can be used as for fibromodulin, e.g. for reducing dermal scarring. PRO264 can be used as a target for anti-tumor drugs. PRO533 may be used in the treatment of Usher Syndrome or Atrophia areata; PRO269 can be used as an anti-thrombotic agent; PRO287 polypeptides and portions may have therapeutic applications in wound healing and tissue repair; PRO317 can be used for treating problems of the kidney, uterus, endometrium, blood vessels, or related tissue, e.g. in the heart of genital tract.

Database: GENESEQ patent database.

AAD48144 TGF-beta type secreted signaling protein LEFTYB /pid=AAD48144.1 - Homo sapiens

Length: 366 aa

Species: Homo sapiens (human)

Kosaki, K., Kosaki, R., Bassi, M.T. and Casey, B., Submitted (01-AUG-1998)

Department of Pathology, Baylor College of Medicine, One Baylor Plaza S230, Houston, TX 77030, USA Title: Direct Submission

Locus: AF081512

Accession: AF081512

Cross-references: GI:5725636; AAD48144.1; AF081512\_1

Database: GBTRANS

AAH27883 left-right determination, factor B /pid=AAH27883.1 - Homo sapiens

Length: 366 aa

Species: Homo sapiens (human)

Strausberg, R., Submitted (08-APR-2002) National Institutes of Health,

Mammalian Gene Collection (MGC), Cancer Genomics Office, National

Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD

20892-2590, USA Title: Direct Submission

Locus: BC027883

Accession: BC027883

Cross-references: GI:20379729; AAH27883.1; BC027883\_1

Database: GBTRANS

AAC33967 signaling molecule LEFTY-B /pid=AAC33967.1 - Homo sapiens

Length: 366 aa

Species: Homo sapiens (human)

Kosaki, K., Kosaki, R., Bassi, M.T. and Casey, B., Submitted (03-AUG-1998)

Department of Pathology, Baylor College of Medicine, One Baylor

Plaza S230, Houston, TX 77030, USA Title: Direct Submission

Locus: HSLEFTYB4

Accession: AF081507

Cross-references: GI:3513759; AAC33967.1; HSLEFTYB4\_1

Database: GBTRANS

AAQ89232 LEFTB /pid=AAQ89232.1 - Homo sapiens

Length: 366 aa

Species: Homo sapiens (human)

Clark, H.F., Submitted (01-AUG-2003) Department of Bioinformatics, Genentech,

Inc., 1 DNA Way, South San Francisco, CA 94080, USA Title: Direct

Submission

Locus: AY358873  
Accession: AY358873  
Cross-references: GI:37182864; AAQ89232.1; AY358873\_1  
Database: GBTRANS

NP\_066277 left-right determination, factor B preproprotein  
/pid=NP\_066277.1 - Homo sapiens

Length: 366 aa

Species: Homo sapiens (human)

Kosaki, K., Bassi, M.T., Kosaki, R., Lewin, M., Belmont, J., Schauer, G. and Casey, B., Am. J. Hum. Genet. 64 (3), 712-721 (1999) Title: Characterization and mutation analysis of human LEFTY A and LEFTY B, homologues of murine genes implicated in left-right axis development

Gene: LEFTB

Locus: NM\_020997

Accession: NM\_020997

Cross-references: MIM:603037; NP\_066277.1; NM\_020997\_1

Database: GBTRANS

LFTB\_HUMAN Left-right determination factor b precursor /pid=AAC33967.1 -  
homo sapiens

Length: 366 aa

Species: Homo sapiens (Human)

Accession: O75610; EMBL; AF081507; AAC33967.1. EMBL; AF081504; AAC33967.1.

EMBL; AF081505; AAC33967.1. EMBL; AF081506; AAC33967.1. EMBL;  
AF081512; AAD48144.1. EMBL; BC027883; AAH27883.1. HSSP; P10600;  
1TGJ. Genew; HGNC:6552; LEFTB. MIM; 603037; -. GO; GO:0007179;  
P:TGFbeta receptor signaling pathway; TAS. InterPro; IPR001839;  
TGFb. InterPro; IPR001111; TGFb\_N. Pfam; PF00019; TGF-beta; 1.  
Pfam; PF00688; TGFb\_propeptide; 1. ProDom; PD000357; TGFb; 1.  
SMART; SM00204; TGFB; 1. PROSITE; PS00250; TGF\_BETA\_1; 1.

Kosaki K., Bassi M.T., Kosaki R., Lewin M., Belmont J., Schauer G., Casey B., Am. J. Hum. Genet. 64, 712-721, 1999., Medline: 9162193;  
PubMed=10053005; (ref. 1: sequence from n.a. tissue=teratocarcinoma) Title: "Characterization and mutation analysis of human LEFTY A and LEFTY B, homologues of murine genes implicated in left-right axis development."

Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Bosak S.A., Mcewan P.J., Mckernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A., Proc. Natl. Acad. Sci. U.S.A. 99, 16899-16903, 2002., Medline: 2388257; PubMed=12477932; (ref. 2: sequence from n.a. tissue=pancreas, and spleen;) Title: "Generation

and initial analysis of more than 15,000 full-length human and mouse cDNA sequences."

Keywords: developmental protein; growth factor; cytokine; glycoprotein; signal; multigene family.

Taxid: tx:9606

Gene name: LEFTB OR LEFTYB.

1-21/Domain: Signal Potential.

22-76/Domain: Propep Or 135 (potential).

77-366/Domain: Left-Right Determination Factor B.

251-264/Disulfide bonds: By Similarity.

263-316/Disulfide bonds: By Similarity.

293-351/Disulfide bonds: By Similarity.

297-353/Disulfide bonds: By Similarity.

158/Site: Carbohyd N-Linked (glcnac...) (potential).

Database: Swissprot (SPROT), Release 40 (Jan 11, 2003)

P\_AAY17870 Human bone morphogenic protein BMP-17 - Homo sapiens.

Length: 366 aa

Accession: P\_AAY17870;

Species: Homo sapiens.

Keywords: Human; bone morphogenic protein; BMP-17; BMP-18; cartilage; tendon; connective tissue defect; ligament; meniscus; wound healing; growth; differentiation; epidermis; muscle; nerve; cardiac muscle; patent; GENESEQ patentdb.

Patent number: WO9929718-A2.

Publication date: 17-JUN-1999.

Filing date: 17-NOV-1998; 98WO-US24613.

Priority: 10-DEC-1997; 97US-0987904.

Assignee: (GEMY ) GENETICS INST INC.

Inventors: Celeste AJ, Murray BL;

Cross reference: WPI; 1999-385570/32. N-PSDB; AAX80213.

Title: New Purified bone morphogenic protein-17 and -18 (BMP-17 and BMP-18) polypeptides, useful for the induction of growth and/or differentiation of undifferentiated embryonic and stem cells

Patent format: Claim 16; Page 35-36; 39pp; English.

Comment: The present sequence is a human bone morphogenic protein designated BMP-17. BMP proteins are useful for the induction of growth and/or differentiation of undifferentiated embryonic and stem cells, and for the treatment of bone, cartilage and other connective tissue defects including tendons, ligaments and meniscus, in wound healing and related tissue repair, and for treatment of disorders and defects to tissues which include epidermis, nerve, muscle, including cardiac muscle, and other tissues and wounds, and organs such as liver, lung, epithelium, brain, spleen, cardiac, pancreas and kidney tissue. DNA encoding BMP proteins can be useful as probes to detect expression of BMP proteins, and the vectors containing DNA encoding BMP proteins are useful for delivery of the BMP proteins to cells of a patient.

1-142/Peptide

/label= pro-peptide/

143-366/Protein

/label= BMP-17/

Database: GENESEQ patent database.

P\_AAU79519 Human endometrial bleeding associated factor (ebaf) - Homo sapiens.

Length: 366 aa



Accession: P\_AAU79519;

Species: Homo sapiens.

Keywords: Human; endometrial bleeding associated factor; ebaf; lefty-A; transforming growth factor beta; TGF-beta; Smad; transcription factor; chromosome 1q42.1; retinoic acid; oestrogen; progesterone; fibrosis; scar; cirrhosis; Asherman's syndrome; Meigs' syndrome; scleroderma; autoimmune disorder; muscular dystrophy; Hamman Rich Syndrome; cell proliferation; hyperplasia; neoplasia; cancer; tumour; carcinoma; leukemia; lymphoma; melanoma; sarcoma; coagulation; menstrual bleeding; uterine bleeding; coagulopathy; toxemia; pregnancy; glomerular disease; hydronephrosis; hepatomegaly; splenomegaly; lipodystrophy; insulin resistance; hypertriglyceridaemia; hypermetabolic state; patent; GENESEQ patentdb.

Patent number: WO200229105-A1.

Publication date: 11-APR-2002.

Filing date: 03-OCT-2001; 2001WO-US30872.

Priority: 05-OCT-2000; 2000US-0679971.

Assignee: (NSHO-) NORTH SHORE LONG ISLAND JEWISH RES.

Inventors: Tabibzadeh S, Mason JM;

Cross reference: WPI; 2002-352240/38: N-PSDB; ABK48599.

Title: Inhibiting the activity of transforming growth factor (TGF) beta, for treating e.g. fibrosis, comprises contacting tissue expressing TGF beta with ebaf peptide or its analogue -

Patent format: Disclosure; Fig 2; 54pp; English.

Comment: The invention discloses a method of inhibiting the activity of transforming growth factor (TGF)-beta, comprising contacting tissue expressing TGF-beta with an effective amount of endometrial bleeding associated factor (ebaf) peptide, or an ebaf analogue. TGF-beta expression can also be controlled by contacting the tissue expressing TGF-beta with a modulator of ebaf, or an ebaf analogue, expression. These modulators of ebaf expression include retinoic acid, oestrogen and progesterone. TNF-beta is a pleiotropic peptide that controls the proliferation of many cell types and modulates the coagulation process by binding to two receptors and signalling through the Smad family of transcription factors. To inhibit the activity of TGF-beta, ebaf, or an ebaf analogue, competes with TGF-beta for binding to TGF-beta receptor type I. Inhibiting TGF-beta activity is useful for treating a human with a condition, such as fibrosis, which is associated with overactivity of TGF-beta. The fibrosis is a scar (resulting from a burn, radiation, or a chemical or myocardial infarct), a keloid, cirrhosis, Asherman's syndrome, Meigs' syndrome, a muscular dystrophy (such as Duchenne), an autoimmune disorder (such as scleroderma), post-surgical fibrosis, or primary pulmonary fibrosis, (such as Hamman Rich Syndrome or retroperitoneal fibrosis). The condition may also be a defect in cell proliferation such as hyperplasia or neoplasia, including cancer, tumours, carcinomas, leukemias, lymphomas, melanomas and sarcomas, or a coagulation defect such as menstrual bleeding, abnormal uterine bleeding, coagulopathy, or toxemia of pregnancy. Overexpression of TGF-beta has also been shown to result in glomerular disease, hydronephrosis, hepatomegaly, splenomegaly, lipodystrophies, insulin resistance, hypertriglyceridaemia and a hypermetabolic state. The protein sequence presented is human endometrial bleeding associated factor (ebaf) which is located on chromosome 1q42.1.

137-366/Region

/note= Can also exist as a 28kD form/  
Database: GENESEQ patent database.

P\_AAB19837 Endometrial bleeding associated factor (ebaf) protein - Homo sapiens.  
Length: 366 aa  
Accession: P\_AAB19837;  
Species: Homo sapiens.  
Keywords: Endometrial bleeding associated factor; ebaf; human; chromosome 1q42.1; neurodegenerative disease; Alzheimer's disease; Parkinson's disease; Huntington's chorea; dementia; amyotrophic lateral sclerosis; Pick's disease; therapy; patent; GENESEQ patentdb.  
Patent number: WO200066068-A2.  
Publication date: 09-NOV-2000.  
Filing date: 28-APR-2000; 2000WO-US11623.  
Priority: 29-APR-1999; 99US-0302094.  
Assignee: (NSHO-) NORTH SHORE-LONG ISLAND JEWISH RES.  
Inventors: Tabibzadeh S;  
Cross reference: WPI; 2001-040876/05. N-PSDB; AAA88913.  
Title: Inducing growth and enhancing survival of nervous tissue by contacting with endometrial bleeding associated factor protein -  
Patent format: Disclosure; Fig 2; 23pp; English.  
Comment: The present sequence is that of human endometrial bleeding associated factor (ebaf). A claimed method for inducing growth and enhancing survival of nervous tissue comprises contacting the tissue with ebaf or a nucleic acid encoding ebaf in vitro or in vivo. The method can be used to treat damaged or degenerated nervous tissue resulting from injury associated with trauma, diabetes, kidney dysfunction, ischaemia or use of therapeutic agents, or to treat a neurodegenerative disease such as Alzheimer's disease, Parkinson's disease, Huntington's chorea, amyotrophic lateral sclerosis, dementia, or Pick's disease (all claimed).  
Database: GENESEQ patent database.

P\_AAB95157 Human protein sequence SEQ ID NO:17194 - Homo sapiens.  
Length: 366 aa  
Accession: P\_AAB95157;  
Species: Homo sapiens.  
Keywords: Human; primer; detection; diagnosis; antisense therapy; gene therapy; patent; GENESEQ patentdb.  
Patent number: EP1074617-A2.  
Publication date: 07-FEB-2001.  
Filing date: 28-JUL-2000; 2000EP-0116126.  
Priority: 29-JUL-1999; 99JP-0248036. 27-AUG-1999; 99JP-0300253. 11-JAN-2000; 2000JP-0118776. 02-MAY-2000; 2000JP-0183767. 09-JUN-2000; 2000JP-0241899.  
Assignee: (HELI-) HELIX RES INST.  
Inventors: Ota T, Isogai T, Nishikawa T, Hayashi K, Saito K, Yamamoto J; Ishii S, Sugiyama T, Wakamatsu A, Nagai K, Otsuki T;  
Cross reference: WPI; 2001-318749/34.  
Title: Primer sets for synthesizing polynucleotides, particularly the 5602 full-length cDNAs defined in the specification, and for the detection and/or diagnosis of the abnormality of the proteins encoded by the full-length cDNAs -  
Patent format: Claim 8; SEQ ID 17194; 2537pp + CD ROM; English.  
Comment: The present invention describes primer sets for synthesising 5602 full-length cDNAs defined in the specification. Where a primer set

comprises: (a) an oligo-dT primer and an oligonucleotide complementary to the complementary strand of a polynucleotide which comprises one of the 5602 nucleotide sequences defined in the specification, where the oligonucleotide comprises at least 15 nucleotides; or (b) a combination of an oligonucleotide comprising a sequence complementary to the complementary strand of a polynucleotide which comprises a 5'-end sequence and an oligonucleotide comprising a sequence complementary to a polynucleotide which comprises a 3'-end sequence, where the oligonucleotide comprises at least 15 nucleotides and the combination of the 5'-end sequence/3'-end sequence is selected from those defined in the specification. The primer sets can be used in antisense therapy and in gene therapy. The primers are useful for synthesising polynucleotides, particularly full-length cDNAs. The primers are also useful for the detection and/or diagnosis of the abnormality of the proteins encoded by the full-length cDNAs. The primers allow obtaining of the full-length cDNAs easily without any specialised methods. AAH03166 to AAH13628 and AAH13633 to AAH18742 represent human cDNA sequences; AAB92446 to AAB95893 represent human amino acid sequences; and AAH13629 to AAH13632 represent oligonucleotides, all of which are used in the exemplification of the present invention.

Database: GENESEQ patent database.

P\_AAY17871 Human bone morphogenic protein BMP-18 - Homo sapiens.

Length: 366 aa

Accession: P\_AAY17871;

Species: Homo sapiens.

Keywords: Human; bone morphogenic protein; BMP-17; BMP-18; cartilage; tendon; connective tissue defect; ligament; meniscus; wound healing; growth; differentiation; epidermis; muscle; nerve; cardiac muscle; patent; GENESEQ patentdb.

Patent number: WO9929718-A2.

Publication date: 17-JUN-1999.

Filing date: 17-NOV-1998; 98WO-US24613.

Priority: 10-DEC-1997; 97US-0987904.

Assignee: (GEMY ) GENETICS INST INC.

Inventors: Celeste AJ, Murray BL;

Cross reference: WPI; 1999-385570/32. N-PSDB; AAX80214.

Title: New Purified bone morphogenic protein-17 and -18 (BMP-17 and BMP-18) polypeptides, useful for the induction of growth and/or differentiation of undifferentiated embryonic and stem cells

Patent format: Claim 20; Page 38-39; 39pp; English.

Comment: The present sequence is a human bone morphogenic protein designated BMP-18. BMP proteins are useful for the induction of growth and/or differentiation of undifferentiated embryonic and stem cells, and for the treatment of bone, cartilage and other connective tissue defects including tendons, ligaments and meniscus, in wound healing and related tissue repair, and for treatment of disorders and defects to tissues which include epidermis, nerve, muscle, including cardiac muscle, and other tissues and wounds, and organs such as liver, lung, epithelium, brain, spleen, cardiac, pancreas and kidney tissue. DNA encoding BMP proteins can be useful as probes to detect expression of BMP proteins, and the vectors containing DNA encoding BMP proteins are useful for delivery of the BMP proteins to cells of a patient.

1-135/Peptide

/label= pro-peptide/  
136-366/Protein  
/label= BMP-18/  
Database: GENESEQ patent database.

AAD48145 TGF-beta type secreted signaling protein LEFTYA /pid=AAD48145.1 -  
Homo sapiens

Length: 366 aa

Species: Homo sapiens (human)

Kosaki,K., Kosaki,R., Bassi,M.T. and Casey,B., Submitted (01-AUG-1998)  
Department of Pathology, Baylor College of Medicine, One Baylor  
Plaza S230, Houston, TX 77030, USA Title: Direct Submission

Locus: AF081513

Accession: AF081513

Cross-references: GI:5725638; AAD48145.1; AF081513\_1

Database: GBTRANS

AAH35718 Unknown (protein for MGC:46222) /pid=AAH35718.1 - Homo sapiens

Length: 366 aa

Species: Homo sapiens (human)

Strausberg,R., Submitted (31-JUL-2002) National Institutes of Health,  
Mammalian Gene Collection (MGC), Cancer Genomics Office, National  
Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD  
20892-2590, USA Title: Direct Submission

Locus: BC035718

Accession: BC035718

Cross-references: GI:23273474; AAH35718.1; BC035718\_1

Database: GBTRANS

AAC32600 signaling molecule LEFTY-A /pid=AAC32600.1 - Homo sapiens

Length: 366 aa

Species: Homo sapiens (human)

Bassi,M.T., Kosaki,K., Kosaki,R. and Casey,B., Submitted (03-AUG-1998)  
Department of Pathology, Baylor College of Medicine, One Baylor  
Plaza S230, Houston, TX 77030, USA Title: Direct Submission

Locus: HSLEFTYA4

Accession: AF081511

Cross-references: GI:3450867; AAC32600.1; HSLEFTYA4\_1

Database: GBTRANS

NP\_003231 endometrial bleeding associated factor preproprotein

/pid=NP\_003231.2 - Homo sapiens

Length: 366 aa

Species: Homo sapiens (human)

Kothapalli,R., Buyuksal,I., Wu,S.Q., Chegini,N. and Tabibzadeh,S., J. Clin.  
Invest. 99 (10), 2342-2350 (1997) Title: Detection of ebaf, a novel  
human gene of the transforming growth factor beta superfamily  
association of gene expression with endometrial bleeding

Gene: EBAF

Locus: NM\_003240

Accession: NM\_003240

Cross-references: MIM:601877; NP\_003231.2; NM\_003240\_1

Database: GBTRANS

TGF4\_HUMAN Transforming growth factor beta 4 precursor /pid=AAB53269.1 -  
homo sapiens

Length: 366 aa

Species: Homo sapiens (Human).

Accession: O00292; O75611; Q8NBQ9; EMBL; U81523; AAB53269.1. EMBL; AF081511; AAC32600.1. EMBL; AF081508; AAC32600.1. EMBL; AF081509; AAC32600.1. EMBL; AF081510; AAC32600.1. EMBL; AF081513; AAD48145.1. EMBL; AK075344; BAC11556.1. EMBL; BC035718; AAH35718.1. HSSP; P10600; 1TGJ. Genew; HGNC:3122; EBAF. MIM; 601877; -. GO; GO:0007275; P:development; TAS. GO; GO:0007309; P:oocyte axis determination; TAS. GO; GO:0007179; P:TGFbeta receptor signaling pathway; TAS. InterPro; IPR001839; TGFb. InterPro; IPR001111; TGFb\_N. Pfam; PF00019; TGF-beta; 1. Pfam; PF00688; TGFb\_propeptide; 1. ProDom; PD000357; TGFb; 1. SMART; SM00204; TGFB; 1. PROSITE; PS00250; TGF\_BETA\_1; 1.

Kothapalli R., Buyuksal I., Wu S.-Q., Chegini N., Tabibzadeh S., J. Clin. Invest. 99, 2342-2350, 1997., Medline: 7298127; PubMed=9153275; (ref. 1: sequence from n.a. tissue=placenta) Title: "Detection of ebafe, a novel human gene of the transforming growth factor beta superfamily association of gene expression with endometrial bleeding."

Kothapalli R., Unpublished results, cited by, Kosaki K., Bassi M.T., Kosaki R., Lewin M., Belmont J., Schauer G., Casey B.; Am. J. Hum. Genet. 64, 712-721, 1999., Medline: 9162193; PubMed=10053005; (ref. 2: revisions.) Title: "Characterization and mutation analysis of human LEFTY A and LEFTY B, homologues of murine genes implicated in left-right axis development."

Kosaki K., Bassi M.T., Kosaki R., Lewin M., Belmont J., Schauer G., Casey B., Am. J. Hum. Genet. 64, 712-721, 1999., Medline: 9162193; PubMed=10053005; (ref. 3: sequence from n.a., and variant l-r axis malformations asn-342. tissue=placenta) Title: "HRI human cDNA sequencing project."

Ota T., Nishikawa T., Suzuki Y., Kawai-Hio Y., Hayashi K., Ishii S., Saito K., Yamamoto J., Wakamatsu A., Nagai T., Nakamura Y., Nagahari K., Sugano S., Isogai T., Submitted (mar-2002) to the EMBL/genbank/ddbj databases., Medline: 2388257; PubMed=12477932; (ref. 4: sequence from n.a.) Title: "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences."

Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Udwin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Bosak S.A., Mcewan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A., Proc. Natl. Acad. Sci. U.S.A. 99, 16899-16903, 2002. (ref. 5: sequence from n.a. tissue=ovary;)

Keywords: developmental protein; growth factor; cytokine; glycoprotein; signal; multigene family; disease mutation.

Taxid: tx:9606

Gene name: EBAF OR TGFB4 OR LEFTA OR LEFTYA.

1-21/Domain: Signal Potential.  
22-76/Domain: Propep Or 135 (potential).  
77-366/Domain: Transforming Growth Factor Beta 4.  
251-264/Disulfide bonds: By Similarity.  
263-316/Disulfide bonds: By Similarity.  
293-351/Disulfide bonds: By Similarity.  
297-353/Disulfide bonds: By Similarity.  
158/Site: Carbohyd N-Linked (glcnac...) (potential).  
342/Site: Variant S -> N (in L-R Axis Malformations). /Ftid=var\_010385.  
183/Site: Conflict A -> P (in Ref. 4).  
Database: Swissprot (SPROT), Release 40 (Jan 11, 2003)

BAC11556 unnamed protein product /pid=BAC11556.1 - Homo sapiens  
Length: 366 aa  
Species: Homo sapiens (human)  
Isogai, T. and Yamamoto, J., Submitted (20-MAR-2002) Takao Isogai, Helix  
Research Institute, Genomics Laboratory; 1532-3 Yana, Kisarazu,  
Chiba 292-0812, Japan (E-mail:genomics@hri.co.jp,  
Tel:81-438-52-3975, Fax:81-438-52-3986) Title: Direct Submission  
Locus: AK075344  
Accession: AK075344  
Cross-references: GI:22761368; BAC11556.1; AK075344\_1  
Database: GBTRANS

P\_AAU79521 Human endometrial bleeding associated factor (ebaf) mutant  
R132G - Homo sapiens. Synthetic.  
Length: 366 aa  
Accession: P\_AAU79521;  
Species: Homo sapiens. Synthetic.  
Keywords: Human; endometrial bleeding associated factor; ebaf; lefty-A;  
transforming growth factor beta; TGF-beta; Smad; transcription  
factor; chromosome 1q42.1; retinoic acid; oestrogen; progesterone;  
fibrosis; scar; cirrhosis; Asherman's syndrome; Meigs' syndrome;  
scleroderma; autoimmune disorder; muscular dystrophy; Hamman Rich  
Syndrome; cell proliferation; hyperplasia; neoplasia; cancer;  
tumour; carcinoma; leukemia; lymphoma; melanoma; sarcoma;  
coagulation; menstrual bleeding; uterine bleeding; coagulopathy;  
toxaemia; pregnancy; glomerular disease; hydronephrosis;  
hepatomegaly; splenomegaly; lipodystrophy; insulin resistance;  
hypertriglyceridaemia; hypermetabolic state; mutant; mutein;  
patent; GENESEQ patentdb.  
Patent number: WO200229105-A1.  
Publication date: 11-APR-2002.  
Filing date: 03-OCT-2001; 2001WO-US30872.  
Priority: 05-OCT-2000; 2000US-0679971.  
Assignee: (NSHO-) NORTH SHORE LONG ISLAND JEWISH RES.  
Inventors: Tabibzadeh S, Mason JM;  
Cross reference: WPI; 2002-352240/38.  
Title: Inhibiting the activity of transforming growth factor (TGF) beta,  
for treating e.g. fibrosis, comprises contacting tissue expressing  
TGF beta with ebaf peptide or its analogue -  
Patent format: Disclosure; Page -; 54pp; English.  
Comment: The invention discloses a method of inhibiting the activity of  
transforming growth factor (TGF)-beta, comprising contacting tissue  
expressing TGF-beta with an effective amount of endometrial  
bleeding associated factor (ebaf) peptide, or an ebaf analogue.  
TGF-beta expression can also be controlled by contacting the tissue

expressing TGF-beta with a modulator of ebaf, or an ebaf analogue, expression. These modulators of ebaf expression include retinoic acid, oestrogen and progesterone. TNF-beta is a pleiotropic peptide that controls the proliferation of many cell types and modulates the coagulation process by binding to two receptors and signalling through the Smad family of transcription factors. To inhibit the activity of TGF-beta, ebaf, or an ebaf analogue, competes with TGF-beta for binding to TGF-beta receptor type I. Inhibiting TGF-beta activity is useful for treating a human with a condition, such as fibrosis, which is associated with overactivity of TGF-beta. The fibrosis is a scar (resulting from a burn, radiation, or a chemical or myocardial infarct), a keloid, cirrhosis, Asherman's syndrome, Meigs' syndrome, a muscular dystrophy (such as Duchenne), an autoimmune disorder (such as scleroderma), post-surgical fibrosis, or primary pulmonary fibrosis, (such as Hamman Rich Syndrome or retroperitoneal fibrosis). The condition may also be a defect in cell proliferation such as hyperplasia or neoplasia, including cancer, tumours, carcinomas, leukemias, lymphomas, melanomas and sarcomas, or a coagulation defect such as menstrual bleeding, abnormal uterine bleeding, coagulopathy, or toxemia of pregnancy. Overexpression of TGF-beta has also been shown to result in glomerular disease, hydronephrosis, hepatomegaly, splenomegaly, lipodystrophies, insulin resistance, hypertriglyceridemia and a hypermetabolic state. The protein sequence presented is mutant of human endometrial bleeding associated factor (ebaf) which is located on chromosome 1q42.1. The substitution of Gly for Arg at residue 132 removes a cleavage site that creates a 28 kD version of ebaf. Note: The presented sequence is not shown in the specification but is derived from the human ebaf wild-type sequence disclosed in figure 2.

132/Misc-difference

/note= Wild-type Arg substituted by Gly/

Database: GENESEQ patent database.

P\_AAU79520 Human endometrial bleeding associated factor (ebaf) mutant  
R74G/R77G - Homo sapiens. Synthetic.

Length: 366 aa

Accession: P\_AAU79520;

Species: Homo sapiens. Synthetic.

Keywords: Human; endometrial bleeding associated factor; ebaf; lefty-A; transforming growth factor beta; TGF-beta; Smad; transcription factor; chromosome 1q42.1; retinoic acid; oestrogen; progesterone; fibrosis; scar; cirrhosis; Asherman's syndrome; Meigs' syndrome; scleroderma; autoimmune disorder; muscular dystrophy; Hamman Rich Syndrome; cell proliferation; hyperplasia; neoplasia; cancer; tumour; carcinoma; leukemia; lymphoma; melanoma; sarcoma; coagulation; menstrual bleeding; uterine bleeding; coagulopathy; toxemia; pregnancy; glomerular disease; hydronephrosis; hepatomegaly; splenomegaly; lipodystrophy; insulin resistance; hypertriglyceridaemia; hypermetabolic state; mutant; mutein; patent; GENESEQ patentdb.

Patent number: WO200229105-A1.

Publication date: 11-APR-2002.

Filing date: 03-OCT-2001; 2001WO-US30872.

Priority: 05-OCT-2000; 2000US-0679971.

Assignee: (NSHO-) NORTH SHORE LONG ISLAND JEWISH RES.

Inventors: Tabibzadeh S, Mason JM;

Cross reference: WPI; 2002-352240/38.

Title: Inhibiting the activity of transforming growth factor (TGF) beta, for treating e.g. fibrosis, comprises contacting tissue expressing TGF beta with ebaf peptide or its analogue -

Patent format: Disclosure; Page -; 54pp; English.

Comment: The invention discloses a method of inhibiting the activity of transforming growth factor (TGF)-beta, comprising contacting tissue expressing TGF-beta with an effective amount of endometrial bleeding associated factor (ebaf) peptide, or an ebaf analogue. TGF-beta expression can also be controlled by contacting the tissue expressing TGF-beta with a modulator of ebaf, or an ebaf analogue, expression. These modulators of ebaf expression include retinoic acid, oestrogen and progesterone. TNF-beta is a pleiotropic peptide that controls the proliferation of many cell types and modulates the coagulation process by binding to two receptors and signalling through the Smad family of transcription factors. To inhibit the activity of TGF-beta, ebaf, or an ebaf analogue, competes with TGF-beta for binding to TGF-beta receptor type I. Inhibiting TGF-beta activity is useful for treating a human with a condition, such as fibrosis, which is associated with overactivity of TGF-beta. The fibrosis is a scar (resulting from a burn, radiation, or a chemical or myocardial infarct), a keloid, cirrhosis, Asherman's syndrome, Meigs' syndrome, a muscular dystrophy (such as Duchenne), an autoimmune disorder (such as scleroderma), post-surgical fibrosis, or primary pulmonary fibrosis, (such as Hamman Rich Syndrome or retroperitoneal fibrosis). The condition may also be a defect in cell proliferation such as hyperplasia or neoplasia, including cancer, tumours, carcinomas, leukemias, lymphomas, melanomas and sarcomas, or a coagulation defect such as menstrual bleeding, abnormal uterine bleeding, coagulopathy, or toxemia of pregnancy. Overexpression of TGF-beta has also been shown to result in glomerular disease, hydronephrosis, hepatomegaly, splenomegaly, lipodystrophies, insulin resistance, hypertriglyceridemia and a hypermetabolic state. The protein sequence presented is mutant of human endometrial bleeding associated factor (ebaf) which is located on chromosome 1q42.1. The substitution of Gly for Arg at residues 74 and 77 removes a cleavage site that creates a 34 kD version of ebaf. Note: The presented sequence is not shown in the specification but is derived from the human ebaf wild-type sequence disclosed in figure 2.

74/Misc-difference

/note= Wild-type Arg substituted by Gly/

77/Misc-difference

/note= Wild-type Arg substituted by Gly/

137-366/Region

/note= Can also exist as a 28kD form/

Database: GENESEQ patent database.

P\_AAU77104 Human transforming growth factor beta 4 (TFG-beta-4)  
polypeptide - Homo sapiens.

Length: 370 aa

Accession: P\_AAU77104;

Species: Homo sapiens.

Keywords: Human; transforming growth factor beta; TGF-beta; insulin production; type I diabetes mellitus; pancreatic cell outgrowth; wound healing; pancreatic duct tissue; ischaemia; stroke; nervous system aging; neurological condition; neurodegenerative disease;



inflammation; vasal injury; chemical injury; traumatic injury;  
tumour-induced injury; amyotrophic lateral sclerosis;  
spinocerebellar degeneration; immunological disease; multiple  
sclerosis; TGF-beta-4; patent; GENESEQ patentdb.

Patent number: WO200212336-A2.

Publication date: 14-FEB-2002.

Filing date: 09-FEB-2001; 2001WO-US04192.

Priority: 09-AUG-2000; 2000US-0635368.

Assignee: (CURI-) CURIS INC.

Inventors: Wang M, Pang K;

Cross reference: WPI; 2002-257468/30.

Title: Treating a subject with a disorder resulting from insufficient  
insulin production; and inducing outgrowth of pancreatic cells,  
involves using a transforming growth factor beta therapeutic -

Patent format: Disclosure; Fig 4; 77pp; English.

Comment: The invention relates to treating a subject with a disorder  
resulting from insufficient insulin production, involving  
contacting the subject with a transforming growth factor beta  
(TGF-beta) therapeutic. TGF-beta polypeptides can be used for  
treating a subject with a disorder resulting from insufficient  
insulin production, e.g. type I diabetes mellitus, and for inducing  
outgrowth of pancreatic cells associated with pancreatic duct  
tissue within a subject. A composition comprising a TGF-beta  
protein may be useful in wound healing and treatment of  
neurological conditions derived from acute, subacute or chronic  
injury to the nervous system, including traumatic injury, chemical  
injury, vasal injury and deficits (such as ischaemia resulting from  
stroke), together with infectious/inflammatory and tumour-induced  
injury, aging of the nervous system including Alzheimer's disease,  
chronic neurodegenerative diseases including Parkinson's disease,  
Huntington's chorea, amyotrophic lateral sclerosis, spinocerebellar  
degenerations and chronic immunological diseases of the nervous  
system or affecting the nervous system, including multiple  
sclerosis. This sequence represents the human TGF-beta-4 protein.

Database: GENESEQ patent database.

P\_AAY92013 Human transforming growth factor beta 4/ebaf monomer - Homo  
sapiens.

Length: 370 aa

Accession: P\_AAY92013;

Species: Homo sapiens.

Keywords: human transforming growth factor beta 4 monomer; ebaf; CKGF;  
mutant; cystine knot growth factor; hairpin loop; infertility;  
patent; GENESEQ patentdb.

Patent number: WO200017360-A1.

Publication date: 30-MAR-2000.

Filing date: 19-MAR-1999; 99WO-US05908.

Priority: 22-SEP-1998; 98WO-US19772.

Assignee: (UYMA-) UNIV MARYLAND BALTIMORE..

Inventors: Weintraub BD, Szkudlinski MW;

Cross reference: WPI; 2000-283585/24.

Title: New mutant cystine knot growth factor proteins comprising one or  
more mutant subunits, useful for treating or preventing diseases  
e.g. hypothyroidism and thyroid cancer

Patent format: Claim 238; Page 302; 320pp; English.

Comment: This is the wild type human transforming growth factor beta 4  
monomer. Mutants comprise at least one electrostatic charge

altering mutation in a beta hairpin loop, resulting in increased bioactivity. Mutant cystine knot growth factor (CKGF) proteins comprising one or more mutant subunits and having novel properties or improved pharmacological properties, compared to wild type CKGFs, are claimed. The CKGF superfamily comprises at least four families of growth factors: the glycoprotein hormones, the platelet-derived growth factor (PDGF) family, the neurotrophins and the transforming growth factor-beta family; the families are known to be structurally similar (especially comprising the cystine knot topology) and it was shown that mutations at certain positions in the CKGF hairpin loops of family members and other members of the CKGF superfamily could significantly alter the biological activities of the CKGF. Mutant transforming growth factor family proteins or analogues are useful for treatment of ovulatory dysfunction, luteal phase defect, unexplained infertility, time-limited conception and in assisted reproduction.

1-266/Misc-difference

/note= optionally mutated to increase electrostatic/  
interaction between beta hairpin structure and/  
a receptor/

267-287/Domain

/label= beta\_hairpin\_loop\_1/

/note= mutant optionally comprises one or more/  
substitutions in these residues/

288-317/Misc-difference

/note= optionally mutated to increase electrostatic/  
interaction between beta hairpin structure and/  
a receptor/

318-337/Domain

/label= beta\_hairpin\_loop\_3/

/note= mutant optionally comprises one or more/  
substitutions in these residues/

338-370/Misc-difference

/note= optionally mutated to increase electrostatic/  
interaction between beta hairpin structure and/  
a receptor/

Database: GENESEQ patent database.

AAB53269 endometrial bleeding associated factor /pid=AAB53269.1 - Homo sapiens

Length: 370 aa

Species: Homo sapiens (human)

Tabibzadeh, S. and Kothapalli, R., Submitted (09-DEC-1996) Pathology, Moffitt Cancer Center, 12902 Magnolia Drive, Tampa, FL 33612, USA Title: Direct Submission

Locus: HSU81523

Accession: U81523

Cross-references: GI:2058538; AAB53269.1; HSU81523\_1

Database: GBTRANS

P\_AAU91323 Human novel secreted protein LP105 - Homo sapiens.

Length: 376 aa

Accession: P\_AAU91323;

Species: Homo sapiens.

Keywords: Human; secreted protein; cancer; autoimmune disease; arthritis; osteoporosis; Alzheimer's disease; Parkinson's disease; meningitis; encephalitis; neoplasia; trauma; ischaemia; infarction; mania;

stroke; cardiovascular disease; atherosclerosis; sepsis; anaemia; rheumatoid arthritis; hypothyroidism; allergic response; liver failure; multiple sclerosis; haemorrhage; paranoia; obsessive compulsive disorder; autism; panic disorder; learning disability; feeding disorder; sleep pattern disorder; balance; perception; Th1-dependent insulinitis; adult respiratory distress syndrome; ARDS; patent; GENESEQ patentdb.

Patent number: WO200214358-A2.

Publication date: 21-FEB-2002.

Filing date: 30-JUL-2001; 2001WO-US21124.

Priority: 11-AUG-2000; 2000US-224642P. 19-OCT-2000; 2000US-241779P.

Assignee: (ELIL ) LILLY & CO ELI.

Inventors: Edmonds BT, Micanovic R, Ou W, Su EW, Tschang SR, Wang H;

Cross reference: WPI; 2002-304057/34. N-PSDB; ABK62075.

Title: Novel polypeptides and polynucleotides of secreted proteins useful for treating various diseases such as multiple sclerosis, cancer, autoimmune diseases, osteoporosis, Alzheimer's disease and Parkinson's disease -

Patent format: Claim 9; Page 134-136; 235pp; English.

Comment: The invention relates to a novel human secreted polypeptide having sequence 90% identical to the polypeptide sequences of LP105, LP061, LP224, LP240, LP239(a), LP243(a), LP243(b), LP253, LP218), LP251(a), LP252, LP239(b), LP223(a), LP255(a), LP244, LP186, LP251(b), LP255(b), or LP223(b). Also included are the nucleic acids encoding the LP proteins (including complement, fragments encoding mature forms of the polypeptide or variant), a vector comprising the nucleic acid, a host cell comprising the vector, the preparation of the protein, an anti-LP antibody, ant/agonists of LP and anti-LP-encoding mRNA ribozymes. The secreted protein or its agonist is useful in the manufacture of a medicament for treating a mammal suffering from a disease (and in diagnosis), condition or disorder associated with aberrant levels of the secreted protein e.g. cancer, autoimmune diseases, arthritis, osteoporosis, Alzheimer's disease, Parkinson's disease, meningitis, encephalitis, neoplasia, trauma, ischaemia and infarction, mania, stroke, cardiovascular disease, atherosclerosis, rheumatoid arthritis, hypothyroidism, anaemia, sepsis, allergic responses, multiple sclerosis, liver failure, haemorrhages, paranoia, obsessive compulsive disorder, autism, panic disorder, learning disabilities, ALS (amyotrophic lateral sclerosis) psychoses, disorders in feeding, sleep patterns, balance, and perception, Th1-dependent insulinitis, adult respiratory distress syndrome (ARDS). The secreted protein is further useful for identifying compounds that bind to the secreted protein. The present sequence represents a novel secreted protein of the invention.

Database: GENESEQ patent database.

CAD29027 unnamed protein product /pid=CAD29027.1 - Homo sapiens

Length: 376 aa

Species: Homo sapiens (human)

Edmonds, B.T., Micanovic, R., Ou, W., Su, E.W., Tschang, S.H. and Wang, H.,

Patent: WO 0214358-A 1 21-FEB-2002; ELI LILLY AND COMPANY (US)

Title: Novel secreted proteins and their uses

Locus: AX392959

Accession: AX392959

Cross-references: REMTREMBL:CAD29027; CAD29027.1; AX392959\_1

Database: GBTRANS

P\_ABP41932 Human ovarian antigen HUKJ46, SEQ ID NO:3064 - Homo sapiens.  
Length: 308 aa

Accession: P\_ABP41932;

Species: Homo sapiens.

Keywords: Human; ovarian antigen; ovary; ovarian; breast; cancer; tumour;  
ovarian cancer; breast cancer; tumour; reproductive system  
disorder; infertility; pregnancy disorder; anovulation; polycystic  
ovary syndrome; PCOS; ovarian cyst; dysmenorrhoea; endocrine  
disorder; infection; inflammatory condition; immune disorder; blood  
disorder; cardiovascular disorder; respiratory disorder;  
neurological disorder; gastrointestinal disorder; urinary system  
disorder; drug screening; gene therapy; chromosome mapping;  
forensic analysis; antibody preparation; cytostatic;  
immunomodulatory; neuroprotective; antiinflammatory;  
gynaecological; reproductive; patent; GENESEQ patentdb.

Patent number: WO200200677-A1.

Publication date: 03-JAN-2002.

Filing date: 07-JUN-2001; 2001WO-US18569.

Priority: 07-JUN-2000; 2000US-209467P.

Assignee: (HUMA-) HUMAN GENOME SCI INC.

Inventors: Birse CE, Rosen CA;

Cross reference: WPI; 2002-147878/19. N-PSDB; ABQ55009.

Title: Isolated nucleic acid molecules encoding novel ovarian polypeptides,  
useful in the prevention, treatment and diagnosis of cancer (e.g.  
ovarian cancer), immune disorders, cardiovascular disorders and  
neurological diseases -

Patent format: Claim 11; SEQ ID No 3064; 2922pp; English.

Comment: The invention relates to 2175 novel human ovarian antigens  
(ABP41054- ABP43228) and to cDNAs encoding them  
(ABQ54131-ABQ56305), and also encompasses polypeptides 90%  
identical and polynucleotides 95% identical to the sequences of the  
invention. The invention additionally relates to recombinant  
vectors and host cells comprising human ovarian antigen  
polynucleotides, antibodies against human ovarian antigens, and the  
use of ovarian antigen polynucleotides and polypeptides in  
diagnosing, treating, prognosing or preventing various ovary and/or  
breast-related disorders. Such conditions include ovarian cancer  
and breast cancer, and metastatic tumours of ovarian or breast  
origin, reproductive system disorders (e.g., infertility, disorders  
of pregnancy, anovulation, polycystic ovary syndrome, ovarian  
cysts, and dysmenorrhoea), endocrine disorders, infections (e.g.,  
chlamydia, HIV, toxoplasmosis, and toxic shock syndrome),  
inflammatory conditions (e.g., mastitis, oophoritis and vaginitis),  
immune disorders (e.g., congenital and acquired immunodeficiencies,  
autoimmune oophoritis, systemic lupus erythematosus), blood-related  
disorders (e.g., anaemia), cardiovascular disorders, respiratory  
disorders, neurological disorders, gastrointestinal disorders and  
urinary system disorders. Ovarian antigen polypeptides and  
polynucleotides may also be used in screening for compounds which  
modulate ovarian antigen expression or activity. The  
polynucleotides may further be used for gene therapy, chromosome  
mapping, in the identification of individuals and in forensic  
analysis, and the polypeptides may be used as food additives or to  
prepare antibodies useful in disease diagnosis, drug targeting and  
phenotyping. The present sequence represents a human ovarian  
antigen of the invention. Note: The sequence data for this patent

did not form part of the printed specification, but was obtained in electronic format directly from WIPO at [ftp.wipo.int/pub/published\\_pct\\_sequences](ftp.wipo.int/pub/published_pct_sequences).  
Database: GENESEQ patent database.